The Home Antiquary Series

ARMOUR AND WEAPONS IN THE MIDDLE AGES

PREFACE

THERE are outward and visible signs that interest in armour and arms, so far from abating, is steadily growing. Whenever any examples of ancient military equipment appear in sale-rooms a keen and eager throng of buyers invariably assembles; while one has only to note the earnest and critical visitors to museums at the present time, and to compare them with the apathetic onlookers of a few years ago, to realize that the new generation has awakened to the lure of a fascinating study. Assuredly where once a single person evinced a taste for studying armour many now are deeply interested.

The books dealing with the subject are unfortunately either obsolete, like the works of Meyrick, Planché, Fosbroke, Stothard, and others who flourished during the last century, or, if recent, are beyond the means of many would-be students. My own book *British and Foreign Arms and Armour* is now out of print, while the monographs of Mr Charles ffoulkes, the Rev. Charles Boutell, and Mr Starkie Gardner are the only reasonably priced volumes now obtainable.

It seemed, therefore, desirable to issue a small handbook which, while not professing in the least to be comprehensive, would contain sufficient matter to give the young student, the 'man in the street,' and the large and increasing number of persons who take an intelligent interest in the past just that broad outline which would enable them to understand more exhaustive tomes upon armour and weapons, and

possibly also to satisfy those who merely wish to glean sufficient information to enable them to discern inaccuracies in brasses, effigies, etc., where the mind of the medieval workman—at all times a subject of the greatest interest—has led him to introduce features which were not in his originals, or details which he could not possibly have seen.

Such inaccuracies are of fairly common occurrence, and an illustration is seen in Fig. 1. It is from the brass of William Robins in St Stephen's Church, St Albans, and is dated 1482. Upon the outside of the right-leg genouillière, or knee-cop, is a piece of ornamental work embellishing the external flange, but, as the figure is turned to the left front in order to face the representation of the lady (not shown), the companion ornament could not be seen upon the left leg, being hidden by the genouillière. The conscientious medieval engraver, remembering that he had to represent all details of the armour, transferred the left-leg ornament to the *inside* of the leg, as the figure shows, quite oblivious of the fact that the unfortunate William Robins could, with such an impediment, have progressed only with an undignified straddle—a most unknightly procedure. This bold transference of detail is a species of licence comparable to that associated with poetry, but probably not quite so justifiable.

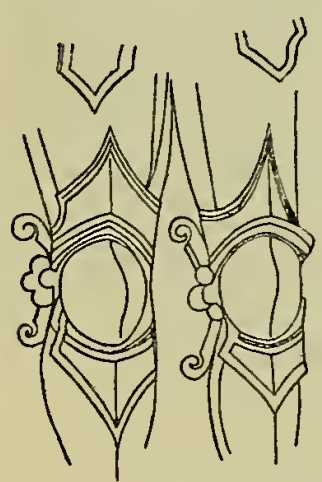

Fig. 1

In many of the treatises extant upon armour only the equipment of the rich is dealt with, but as the defences and arms of the ordinary combatant are of equal importance they have also been carefully considered in the compilation of this book. The student must be on his guard against

the picturesque but quite impossible armour depicted in illustrated manuscripts of the fifteenth century, chiefly in connexion with romances of King Arthur and the life of St George. Possibly a comparison of the actual with the fanciful may lead to the disturbance of treasured notions, but truth is not less interesting and attractive than fancy.

The study of brasses has become of redoubled interest since the Great War, inasmuch as many examples on the Continent disappeared during the War years. In number these memorials were never very great, and could not bear comparison with those in the British Isles; to-day, therefore, more than ever, England's proud position of being the home of sepulchral brasses, and the only country where they may be studied in their full development, is unchallengeable. The fact only needs to be stated to ensure that every patriotic child of Britain who sees a brass in danger of injury or destruction will make an effort to preserve it.

With regard to historical manuscripts, a few words of explanation respecting their classification may not be out of place, since it may be assumed that many do not know what is meant by, say, 'Cott. MS. Tib. C. VI' or 'Roy. MS. C. IV.' The first reference signifies that the manuscript in question formed one of the volumes in the library of Sir John Cotton in 1700; 'Tib.' signifies 'Tiberius,' and refers to the fact that the bust of that worthy stood over the bookcase in which the particular manuscript was placed. The letter 'C' indicates the third shelf in the bookcase in alphabetical order, and 'VI' is the place upon the shelf occupied by the book. Similarly, 'Roy. MS. C. IV' indicates that the manuscript came from the bequest of King George II in 1757. 'Add. MSS.' refers to the large additional collection formed by Government grants. The Harleian manuscripts were sold to the British Museum in 1742 upon the death of Edward Harley, second Earl of

Oxford, and in the same way the manuscripts collected by Sir Hans Sloane were purchased for the British Museum in 1754.

It should be clearly borne in mind that the illuminators of the Middle Ages had little knowledge concerning any costume except that prevailing when they lived, and that consequently they were compelled to depict their characters in the dress familiar to them. As the majority of the manuscripts deal with sacred subjects this fact explains why Joshua is shown in one manuscript as a Saxon thane, and in another in full plate armour of the fifteenth century. Moses appears as a Norman noble, and again as a knight of the thirteenth century on horseback couching his lance. If a modern artist depicted Julius Cæsar as a bemedalled general in khaki, or Pontius Pilate in Lord Mayor's costume, it would probably provoke criticism ; the medieval limner, however, would perceive nothing incongruous in either. This custom prevailed until the close of the fifteenth century, and one of its effects has been to preserve for us a faithful representation of the costume of the Middle Ages with practically every minute deviation it underwent.

C. H. A.

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PUBLISHERS NOTE

Owing to the death of the Author while this book was still in manuscript, the task of placing the illustrations, compiling the Glossary and Index, and seeing the book through the press was undertaken by his widow, who was closely associated with her husband in all his literary work. On certain points Mr S. J. Camp, Keeper of the Wallace Collection, London, was consulted and kindly gave advice.

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Several imaginative sketches of historical scenes by Mr M. Meredith Williams have been included in this volume by way of illustrating certain features referred to in the text.

ARMOUR AND WEAPONS IN THE MIDDLE AGES

CHAPTER I

THE SAXON PERIOD (TO 1066)

Battles, Sieges, etc., during the Period

635. Heavenfield.
642. Maserfield.
655. Winwood.
685. Nectansmere.
821. Ellandune.
837. Hingston Down.
871. Ashdown.
878. Edington.
937. Brunanburh.
1066. Stamford Bridge.
1066. Fulford.

THE sources of our knowledge respecting the military equipment of our Saxon forefathers are almost wholly derived from

(*a*) the contents of Saxon barrows, or burying-places;
(*b*) the writings of the period;
(*c*) the illuminations in Saxon manuscripts.

From the evidence supplied by these a very complete knowledge of Saxon arms and armour has been acquired, because details lacking in one instance have been furnished by other discoveries.

The various Scandinavian countries peopled by the sons of Odin, *c.* 120 B.C., all developed a similarity in military equipment, the bodily defence in each case consisting of the byrnie, helmet, and shield, while the weapons comprised the spear, javelin, sword, scramasax, and axe.

The Byrnie or Battle-sark.—In the early days of the Saxon Period in England apparently none wore body

armour except the leaders, and even at the time of the Norman Conquest the rank and file were content with a coat of thick leather, girded round the waist. The efficacy of leather in warding off a sword-cut, and in mitigating the power of missile weapons such as arrows or javelins in flight, has at all times been recognized, and occasionally, as with the Saxons, and subsequently with the Cromwellian troops, was considered all-important. The byrnie of the Saxon leaders consisted of leather, upon which were fixed various defences, such as rings of iron or brass, scales, disks, etc., either of metal or horn.

It is a moot point whether chain-mail was in use at this period. In the Bayeux Tapestry one figure is shown stripping the slain, and the byrnie from a fallen Saxon warrior exhibits the same markings inside the garment as outside, which would be possible only in the case of chain-mail. In a Scandinavian historical romance of the eleventh century, called the *Volsunga Saga*, we read of a warrior "so swelled with rage that the rings of his byrnie burst asunder," which they could hardly have done unless they were interlocked. The Anglo-Saxon poem of *Beowulf* affords evidence on the point: "The war-byrnie shone, hard, handlocked, the bright ring-iron rang in their trappings"; also the "war-byrnie twisted with hands."

Varro attributes the invention of chain-mail to the Gauls, and many have asserted that the East was responsible for it. Modern historians are apparently agreed upon its use by Scandinavian nations, and this belief is strengthened by the recent discovery and removal to the National Museum at Copenhagen of the contents of a boat built during the second century (Iron Age) and found in the island of Alsen, one article being a piece of chain-mail. A rusted lump of what is apparently chain-mail is preserved in the British Museum, and came from excavations in Nineveh.

The Helmet.—This was made of a framework of metal bands, strengthened either inside or outside by a leather cap. The bands were of iron or bronze, and rather thin. One passed round the head just above the ears; from this as a foundation two other bands rose, one stretching from the forehead to the back of the head, the other from side to side. Toward the end of the tenth century the band rising from the forehead was lengthened so as to form a nasal protecting the face from a sword-cut, and this became universal by the middle of the next century. Normans and Saxons alike exhibit this feature upon the Bayeux Tapestry.

The Phrygian type of cap or helmet is the one most frequently seen in illuminated manuscripts, and the iron and bronze shapes which have been found in Saxon interments lend themselves to that form in most cases. They are generally combed or crested; the conical variety, however, is also common. The helmet was often highly ornamented; thus we are told that the soldiers in the ship which Godwin presented to King Hardicanute had gilt helmets.

The Shield.—This was an important part of the equipment of the Saxon warrior and considered indispensable. It was circular in shape, and made of wood of the lime-tree:

> He could not then refrain,
> But grasped his shield,
> The yellow linden.
>
> *Beowulf*

Upon the front of the shield was a defensive covering of leather, and it was still further strengthened by an iron boss, the umbo, projecting in the centre and covering a hole in the wood into which the left hand was thrust as it grasped the handle, which stretched across the concavity. The surface of the shield was convex, invariably painted

with some design, which often showed artistic merit, and was at times ornamented with studs of iron or bronze. A guige, or strap, was fastened inside, whereby the shield could be slung round the neck, or upon the back, when not in use.

In Saxon interments the usual arrangement of the weapons is that illustrated in Fig. 2, where the head of the spear is shown to the left of the skull and the socket at the end of the shaft near the feet. The shield is indicated by the circular dotted lines and the umbo under the left hand. The scramasax is seen near the left forearm.

Fig. 2
SAXON INTERMENT

The Lance or Spear. — This was the common weapon of cavalry and infantry alike, and varied in length according to whether its owner was a horseman or footman. In the former case its length was about ten feet, in the latter six feet. The spear-shaft is always referred to as being of ash-wood (the metonymic name for a soldier was 'æsc-born,' or ash-bearer); it had a spear-head of various forms, apparently no two being alike, but careful differentiation seems to prove that they all belong to a few well-defined types (Fig. 3).

Fig. 3
SAXON LANCES AND SPEARS
Add. MS. 11695

Below the heads of the spears shown in Fig. 4 are several cross-pieces, or lugs, probably intended for sword-guards, which, however, are very rarely found in barrows. The size of the spear-head varies from three to eighteen inches, but the most common length is from ten to fourteen inches. The

socket for the shaft in examples found in England is almost always split up toward the blade, and holes for the rivets are found. The barbed spear, or angon, is not often discovered in British barrows, notwithstanding the fact that it is common in illuminated manuscripts. At times the socket enclosing the end of the shaft was ornamented. A spear-head found in England and probably dating from the ninth or tenth century is illustrated (Fig. 5). Unlike the usual Saxon style the socket is not split, but is in this case highly ornamented with inlaid silver, which forms the outline of the decoration, the spaces between the lines being filled with a kind of enamel of a reddish colour. Fig. 6 is from a drawing of the ornamental design on the shaft. The butt-end of the spear was furnished with an iron-spiked shoe; this shoe, together with the size of the socket in the spear-head, proves that the spear was a fairly thick one and that the excessive thinness of the shaft shown in Saxon illuminations existed only in the mind of the limner.

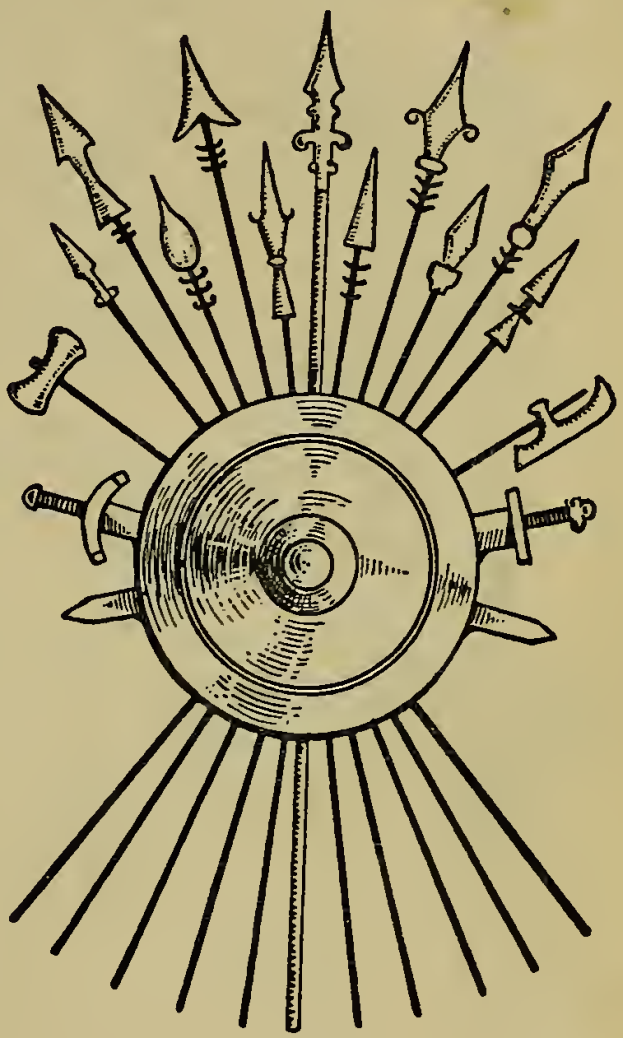


Fig. 4
SAXON WEAPONS

The method of using the lance is unknown, but it probably never left the hand, although it might be inferred

from the overhead poise of the shaft, as generally delineated, that it was thrown in some cases. Lance-heads were not generally furnished with barbs, since a barb would impede the quick withdrawal of the weapon after inflicting a wound.

Fig. 5
SPEAR-HEAD WITH ORNAMENTAL SHAFT

The Javelin.—The head of the javelin is generally depicted as barbed; the weapon ranged from three to four feet in length and was carried in pairs. The cross-pieces are as a rule omitted in the case of this weapon.

The Sword.—The sword was honoured among the Saxons above all other weapons. It was essentially the symbol of sovereignty and was not bestowed upon any person occupying a lower rank than thane. It was double-edged and heavy in the blade, while in early examples it did not possess a guard. It was made the object of much ornamentation; occasionally the hilt was of ivory and gold, and the blade inlaid with the precious metals.

Fig. 6
ORNAMENTAL DESIGN ON SHAFT

With runic letters
Rightly marked
Set and Said, for whom that Sword,
Costliest of irons,
Was first made;
With twisted hilt and
Serpent-shaped.

Beowulf

It was used by cavalry and infantry; the length over all was generally about three feet; the double-edged blade was rounded at the point and from two to two and a half inches broad near the hilt. The latter was not, as before stated, furnished with guards, or quillons, in its primitive form; but, as the period progressed, a cross-piece was added either straight or drooping slightly toward the blade, while the point of the sword became less obtuse. The grip was of pine wood, covered with leather, horn, or bone, while the scabbard, also of wood, was covered with leather, usually highly ornamented, the locket and chape being of metal, generally bronze.

Names were often given to favourite swords, and they were religiously handed down from father to son or from one champion to another.

> . . . Drew his ancient sword
> That among men was
> A relic of Eanmund,
> Ohthere's son.
>
> *Beowulf*

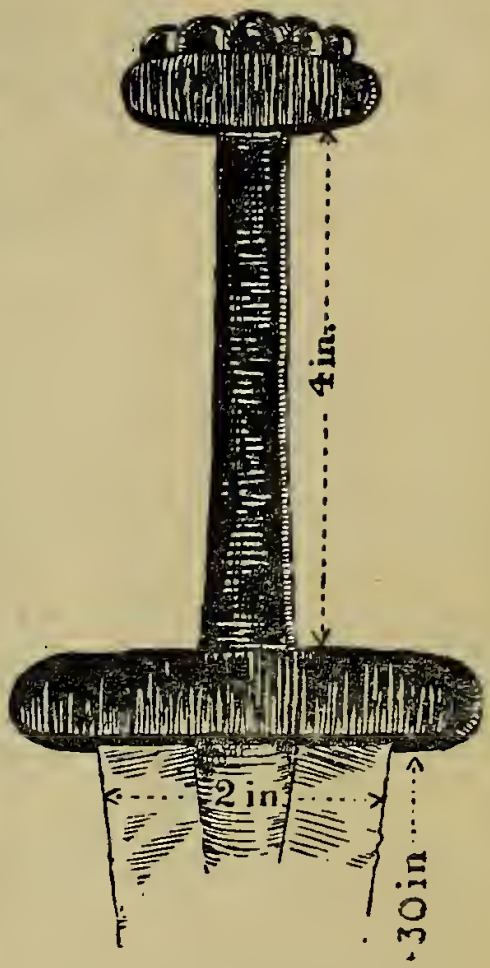


Fig. 7
SWORD OF NINTH CENTURY
Wallace Collection (*No.* 1)

The Saxon sword preserved in the Wallace Collection has a flat lobated pommel and short straight quillons, on the upper faces of which silver ornament has been applied by parallel strands of wire, while the centre of the blade has also been decorated (Fig. 7). It is of the ninth century and is similar to the sword in the British Museum found in the Witham.

Several examples of the type have been discovered lately in the Thames.

An ingenious theory respecting the origin and subsequent development of the lobated pommel was advanced by the late Sir Guy Laking and is well exemplified in the London Museum. He suggested that a sacred relic might have been secured to the pommel by a sinew or string, and this, rough at first, might possibly become ornamented as time

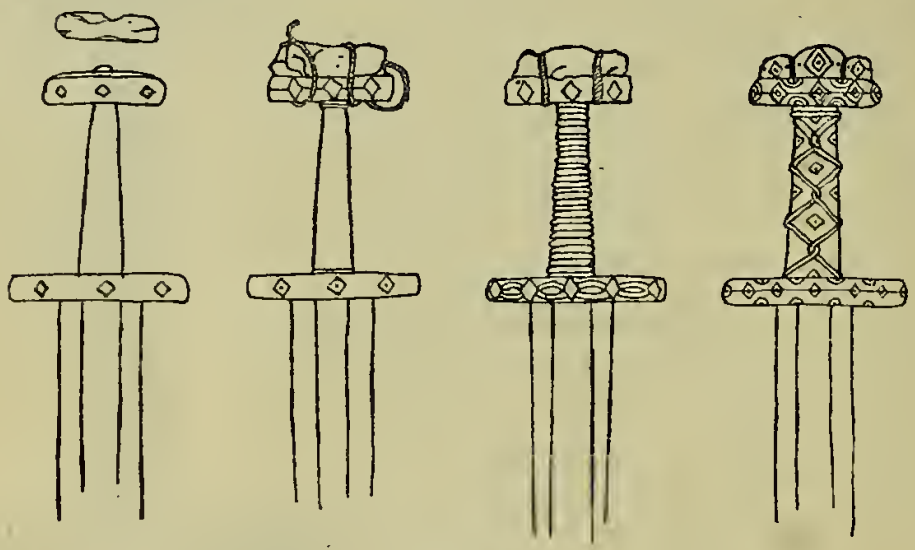


Fig. 8
SUGGESTED EVOLUTION OF THE LOBATED SWORD-POMMEL
London Museum

progressed, until at last the pommel in its latest form was evolved of metal, the relic having been abandoned after the ornamental form had been suggested (Fig. 8).

The **seaxe (scramasax)**, or **dagger**, was a weapon common to Saxon warriors, and is often found in interments. The handles were made of wood, and some that have been preserved show elaborate carving. There was no cross-guard, and the weapon is at times single-edged, though the leaf-like form is common. A sketch from the Anglo-Saxon Psalter of the Duc de Berri in the Bibliothèque Nationale, Paris (Fig. 9), affords an illustration of the use of the dagger; both of the disputants appear to be rather

damaged by the little difference that has occurred between them. Another form of the blade of the seaxe which has been handed down to us is shown in Fig. 10.

The **axe** was a weapon essentially of Scandinavian origin and use, but, although often found on the Continent, is of very rare occurrence in Anglo-Saxon graves in England. Extant manuscripts do not definitely show the axe, and it is probable that the same weapon which felled trees or slaughtered oxen was used to overcome an adversary in the field. The axe handle, heft, or helve, was made of ash, and one example remains of iron. Another variety of the weapon, the poleaxe, furnished with a long handle, was wielded with fearful effect by the English at the battles of Stamford Bridge and Hastings, and it may be taken for certain that few survived a blow from this weapon. At Hastings Harold used it, and even the Conqueror himself is represented with one. The use of the poleaxe in the battle, however efficacious when infantry were contending against cavalry, was in a certain measure the cause of the Saxon defeat, for William, perceiving that the enemy slung their shields behind the back in order to give free play for the arms, directed a vertical flight for the Norman arrows, and one of these found its billet in the face of Harold.

Fig. 9
SAXON SEAXE IN USE
From Anglo-Saxon Psalter, Paris

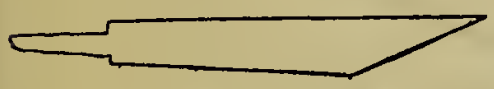


Fig. 10
BLADE OF THE SEAXE

The double axe is of great rarity and is but seldom shown in the illuminated manuscripts, yet as a Frankish weapon it may have been favoured by the Saxons.

The Danes

No essential difference distinguished the equipment of the Danes from that of other Scandinavian nations except a rude attempt to imitate in leather the bronze greaves of the Roman soldiers so as to add a leg defence to the protection afforded by the byrnie and helmet. As the muscles

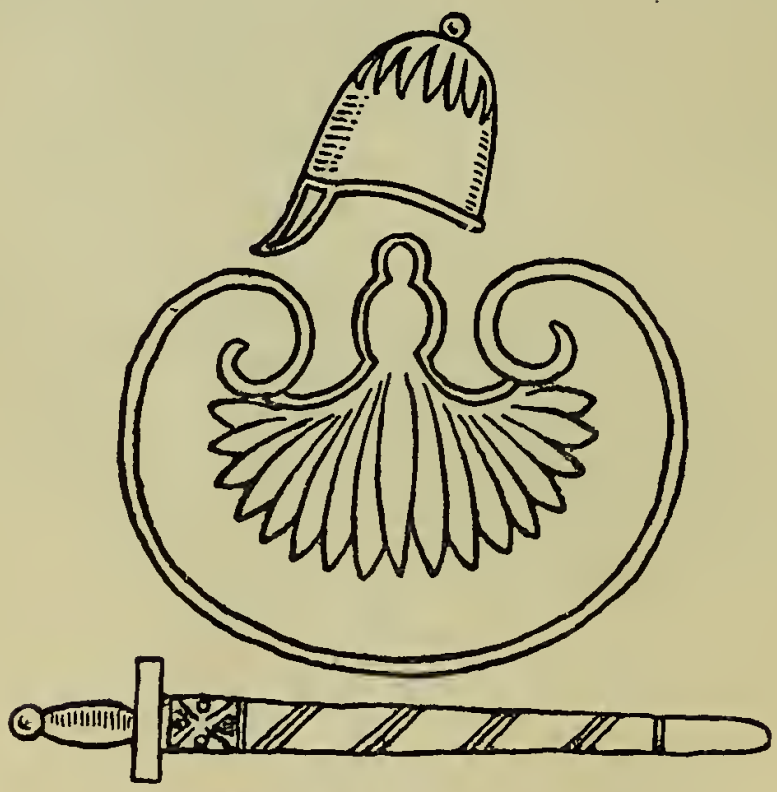


Fig. 11. Danish Helmet, Shield, and Sword

of the limb are imitated it is probable that cuir-bouilli was employed, that is, leather which had been softened by boiling in oil and which when dry was very hard and tough and retained the dimensions and shape of any object upon which it had been moulded and pressed while soft. This, together with a pectoral of flat iron plates, rings, or disks of metal worn upon the chest and depending from a broad collar protecting the neck, formed the chief defensive equipment.

The helmet in Fig. 11 shows the usual shape in vogue, but additions in the form of protruding horns of highly ornamental design were affected by the chiefs. The common helmet was of leather strengthened with iron, and was provided with a nasal. The shield depicted is taken from Cott. MS. Caligula A. VII, a prayer-book of King Canute, and may not have been universally of the exact shape shown.

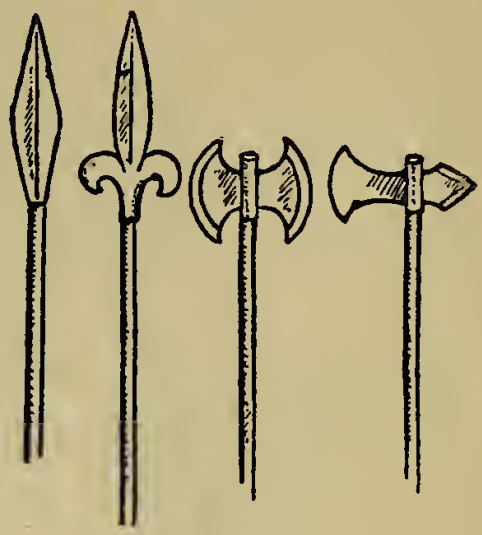


Fig. 12
DANISH WEAPONS

The Danish axe, shown in Fig. 12, was the bipennis, or a variation fitted on one side with a diamond-shaped spike in place of a blade. Upon the ship presented by Earl Godwin to King Hardicanute "were soldiers with gilt helmets; in the right hand they carried a spear of iron, and on the left shoulder they bore a Danish axe." The plain spear shown in Fig. 12 was that usually carried, and had no cross-guards; the second example from the left is taken from a coin of Canute.

CHAPTER II

THE NORMAN PERIOD
(1066–1180)

Battles, Sieges, etc., during the Period

1066. Hastings.
1106. Tinchebrai.
1119. Brémule.
1128. Alost.
1138. Battle of the Standard.
1141. Lincoln.
1142. Oxford.
1174. Bury.

Special Additions, Improvements, etc., of the Period

(1) Many varieties of body armour, as exemplified by the Bayeux Tapestry.
(2) The conical helmet.
(3) Introduction of the longbow.

Examples for Study

The Bayeux Tapestry.

The period from 1066 to 1180 was one of steady transition from one phase of military equipment to another, caused by the introduction of some new weapon or the improvement of an existing one, whereby the defence of the prevailing armour was overcome; each innovation was always followed by an attempt to devise an equipment capable of resisting the new weapon. When this had been effected another attempt was made to render the offensive more powerful, and this continual struggle for supremacy between the attack and the defence has continued to the present day.

Probably the most important of the offensive weapons introduced during this period was the longbow, first used

by the English at the battle of the Standard. The bow was used by the Saxons, but apparently was not deemed of equal merit with the lance and axe, and therefore was employed very sparingly and only as a means of linking together bodies of footmen otherwise armed. Some historians have denied the use of the bow altogether to the Saxons, but in the illuminated manuscripts Anglo-Saxon bows, arrows, and quivers are found delineated.[1] The historian Henry of Huntingdon states that William the Conqueror derided the Saxons for not using the bow, and it is certain that to its extensive use by the Normans, who employed archers in large bodies, the defeat of Harold was largely due. Practically all the infantry in the Norman army were archers; and at Hastings they were used as a screen for the three great divisions of the cavalry.

The armour of the Normans at the time of the Conquest consisted of the hauberk, helmet, and shield; the weapons were the lance, javelin, axe, sword, mace, and bow.

The Hauberk.—In tracing the history and development of defensive equipment there are at certain stages differences of opinion to be met with among historians, and with respect to the Norman hauberk such a point occurs. There are some authorities who aver that the different methods of representing armour during the Norman Period by the illuminators of the manuscripts are only variations of style, the whole of them signifying chain-mail pure and simple. Against this theory it may be advanced that two or more centuries later, when chain armour was in common use, its cost was so prohibitive that only the wealthy classes could afford it, while pieces picked up upon the battlefield were highly prized by the soldiery. Its common use at

[1] See Cott. MSS. Tiberius C. VI; Claudius B. IV; Cleopatra C. VIII; and in the Prudentius.

the Conquest was therefore, on the score of cost alone, out of the question.

The Bayeux Tapestry, from which our chief sources of illustration are derived, depicts armour as in Fig. 13 (Nos. 1 to 6, and 8), where seven varieties are given.

(1) This is undoubtedly intended to represent the ringed byrnie described in Chapter I as being in general use by

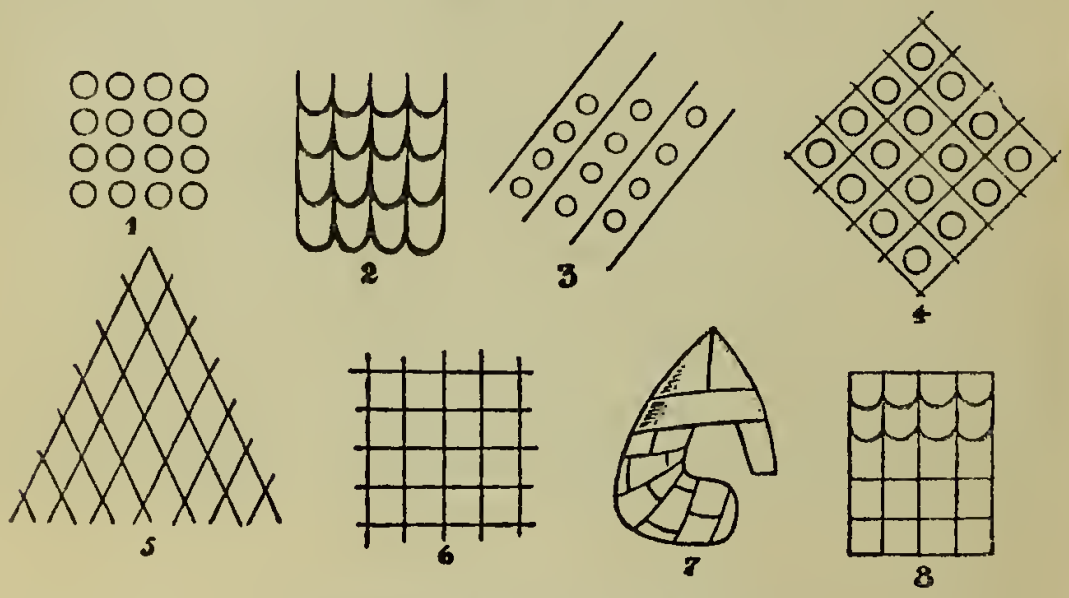


Fig. 13. Details of Armour
Bayeux Tapestry

Scandinavian nations. The Crusader kissing the soil and another kneeling, in Fig. 14, illustrate this type.

(2) The use of scales of various material sewn upon a textile base has been known to the nations of antiquity from a very remote period, and the Roman lorica, consisting of bronze scales overlapping with the points downward, is carved upon many contemporary monuments. The scales might be made of horn, leather, cuir-bouilli, bronze, or iron. It will be noticed that the scales depicted in No. 2, Fig. 13, have a vertical alignment, whereas in classical examples they overlap alternately downward, like tiles.

(3) and (4). These represent iron rings sewn upon

Fig. 14. THE FIRST CRUSADERS IN SIGHT OF JERUSALEM

a foundation of leather or other pliable material and strengthened by bands of leather sewn between the rings. It has been suggested that 'jazeraint' or 'jesserant' work is intended here. This was a species of defence which consisted of plates or 'splints' of a defensive nature sewn between two layers of a pliable material and kept in position by needlework, which fastened the two layers together like modern quilting. If this is the case, then the circles depicted in Fig. 15 would represent the heads of studs fixed into the hidden defence and preventing them from moving out of position. Later jazeraint work was much in vogue for soldiers' jacques and other defences, when studs were generally used; they were, however, small when compared with the example under discussion. It may also be objected that the large stud delineated here would practically double the weight if metal were used, and so render the hauberk intolerably heavy. (4) is illustrated in Fig. 14 upon the kneeling knight with rein over left arm.

Fig. 15. Leather or Cloth Hauberk

(5) and (6). Ordinary quilted armour is here shown, a method of defence dating from remote antiquity. A variety of materials have served for the padding, such as wool, tow, vegetable fibre, shredded cloth, etc. Garments made upon this principle were much in use when plate armour was introduced; and when worn underneath it they lessened the chafing action of the iron plates upon the body. They were also worn, for the same reason, under chain armour. As a defence against a lance, javelin, or arrow, quilted armour was vulnerable, but it was of good service in mitigating the

severity of a sword-cut and diminishing the penetrability of an arrow at long range (see Fig. 16).

(7) This is a crude representation of a Norman helmet. The nasal is readily recognizable, while the curved form to the left is the quilted defence hanging down on the back of the neck and shoulders and forming a kind of camail—which was usually chain-mail depending from the helmet and resting on the shoulders. This padding was continued upward into the helmet, and, while acting as a reinforcement to the defence, served at the same time to distribute more evenly the weight of the headpiece.

Fig. 16
MAN-AT-ARMS

(8) This is a method of representing armour very often adopted by the illuminators, and probably indicates the addition of extra defences to those parts considered weak.

An addition to the hauberk was the **pectoral**, a square or oblong piece of material worn upon the chest, thus hiding the slit through which the head was passed when the garment was put on. It also served as a reinforcement for the neck and chest. The upper part of the hauberk was generally continued to form a protection for the head, only a small portion being left open to allow of the face being seen, as depicted in Fig. 17, which is taken from Harl. MS. 2895 and represents Goliath of Gath looking down in derision upon

his puny opponent, though David is omitted in the drawing. The sleeves of the hauberk are shown terminating above the elbow. The skirt generally opened up in front to allow of facility in riding, and at times is represented with slits both before and behind, thus allowing the sides to be wrapped round the thighs and so affording an additional defence.

Fig. 17
GOLIATH OF GATH
Harl. MS. 2895

The Helmet.—This is always represented at the time of the Conquest as of the conical form, and was constructed like the Saxon helmet or by four triangular pieces of metal attached to a circlet of iron round the head (see Fig. 14). The nasal was universal, and if the hauberk did not cover the head and neck, a camail was attached to the helmet. As the period progressed the helmet assumed the form of a truncated cone with a more or less flat top, while the nasal became broader and longer.

Respecting the facial protection afforded by this portion of the helmet, Tout and Powell quote the following: "The Earl of Chester, Hugo the Fat, and Hugh the Proud of Shrewsbury would have taken the whole coast of North Wales and even Anglesey but for Magnus Bareleg, King of Norway, who sailed into the Menai Straits as the two border earls were engaged in subduing the island [1089]. They drew up their men to prevent the Northmen landing when the King ran his ships close to the shore and there was a sharp fight. Hugh the Proud was on horseback in the water in front of his men. He was covered all over in mail so that save his eyes there was not a bare spot on him. King Magnus and a Fin that stood by him on the quarter-

deck of his ship both shot at the earl at the same time. One arrow hit the nosepiece of the helmet so hard that it bent it on one side, but the other struck Hugh's eye and pierced through his head so that the point stood out at the nape of his neck, and men saw that that arrow was the King's." The nasal, however, caused misfortune to King Stephen,

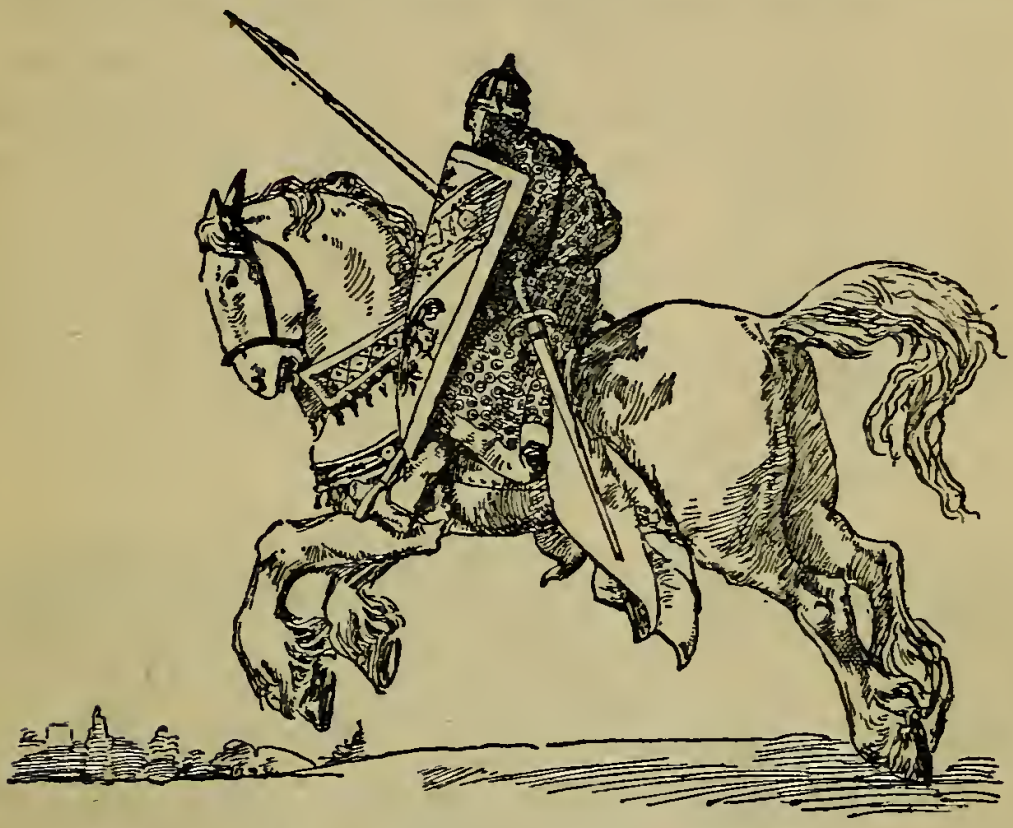


Fig. 18. KNIGHT ON HORSEBACK

since at the battle of Lincoln (1141) he had defended himself well with a Danish axe, striking down every one that approached him, until the axe-helve broke and a stone felled him to the ground. William de Kahains sprang forward and seized him by the nasal and finally made him yield himself prisoner.

The Norman Shield.—The Normans were essentially a nation of horsemen, and the kite-shaped shield they adopted afforded the maximum amount of protection combined with the minimum measure of inconvenience. In action

it was held close up to the eyes by the left hand so that the broad upper part protected the greater portion of the body, while the long tail hanging downward (Fig. 18) was a protection to the left thigh. On the inner face (which was either flat or concave) near the top was a hollow, supposed to be of use when the shield was slung upon the back; lower down two hollow grooves, parallel to each other, occur, and these with two small straps afforded a double handle for the left hand and arm.

Fig. 19
LANCE

A simple design was invariably painted upon the shield, and this had developed into armorial bearings by the end of the twelfth century. The tendency was for the shield to grow shorter as time progressed.

Fig. 20. THE BAYEUX TAPESTRY

The round Saxon shield or target did not entirely disappear, but remained in vogue during the Middle Ages for foot-soldiers.

The **lance** as in use by the Normans is supposed to have fulfilled also the function of a javelin, since it could be hurled overhand at an adversary. In the Bayeux Tapestry the lance is mainly represented as being carried over the arm (Fig. 20). It had a slender shaft with a fairly broad blade, sometimes barbed, and when not

Fig. 21
AXE

Fig. 22
NORMAN MAN-AT-ARMS WITH BATTLE-AXE

in use was carried erect with the end resting on the stirrup.

The Axe.—This weapon had a single curved blade, and was in all respects similar to the modern hatchet; the shaft was long, and from the fact that it was wielded by the Conqueror himself we assume that the weapon was held in high esteem (Figs. 21, 22). We may gather an idea of the subsequent development of the weapon from the nature of the one wielded by Cœur-

de-Lion, according to the following testimony of an old poet :

> This King Richard I understond,
> Ere he went out of Englond,
> Let make an axe for the nones
> Therewith to cleave the Saracens' bones.
> The head in sooth was wrought full weele,
> Thereon were twenty pound of steele,
> And when he came to Cyprus lond
> This ilkon axe he took in hond.

The Sword.—The blade was two-edged and about thirty inches in length : it narrowed gradually to the point, which was diamond-shaped. The quillons were short and straight at the time of the Conquest, but became slightly curved toward the blade afterward. The grip was short and without a swell, while the pommel was simply a spherical knob or wheel-shaped (see Fig. 23).

The Mace.—This was used by the Norman horseman when the lance had become splintered. It was of wood, or of wood with the head covered with iron. A Norman is represented upon the Bayeux Tapestry wielding a mace the extremity of which is heart-shaped.

The Bow.—The Norman bow was similar to the Saxon in being of classical design, but this form necessitated the arrows being short and consequently of limited range. As missiles the Normans appear to have made great use of the javelin or lance, although practically all the infantry were archers. Some mounted archers are also seen in the Bayeux Tapestry.

The Saxon fyrd or militia at the time of the Conquest had no uniform equipment, but each man wielded the weapon which he thought best and donned the garments he deemed most suitable. Thus bow, bill, axe, sword, lance, spear, and sling were to be found in the wings of Harold's army at Hastings, his own housecarls occupying the centre.

The latter were completely defended by body armour, and their shields, when securely interlocked, formed the famed shield-wall against which the Norman arrows broke in vain and the cavalry repeatedly recoiled. When, however, the archers were ordered by William to direct their missiles upon the unarmoured fyrd the latter quickly fell into confusion, and were in consequence easily deceived by the feigned retreat of the Normans which followed. The ensuing slaughter proved that the bravest of foot-soldiers were in open fighting no match against mail-clad horsemen.

The period between the battle of Hastings and that of the Standard (1138) was marked on the part of the knights by improvements in the leg defences, which were now made to protect the front part of the leg and thigh and to be tied up the back of the limb with interlacing strings. Tegulated armour, or defences made of overlapping plates, were used, the plates being scale-shaped, foliated, or square, while studs were extensively used affixed to a pliable material. Thus the armour of 1148, as shown in Fig. 23, exhibits a pair of studded chausses upon the legs tied together round the feet and possibly at the back of the legs. The spear-head with its pennon, the helmet with large nasal, and the kite-shaped shield, are well exemplified, as is the sword with its short quillons and spherical pommel. The group is taken from an illuminated Bible, where in the capital letter F the painter has introduced the figure of Goliath with a stone in his forehead, a sword-cut in the neck of his hauberk, and the victorious David standing upon him.

The Longbow.—But the chief innovation during the period named, and the one which exercised the greatest influence upon the military might of England, was the introduction of the longbow, the use of which was taught

to the English by the men of South Wales. These appear to have been formidable bowmen, if we may credit Gerald

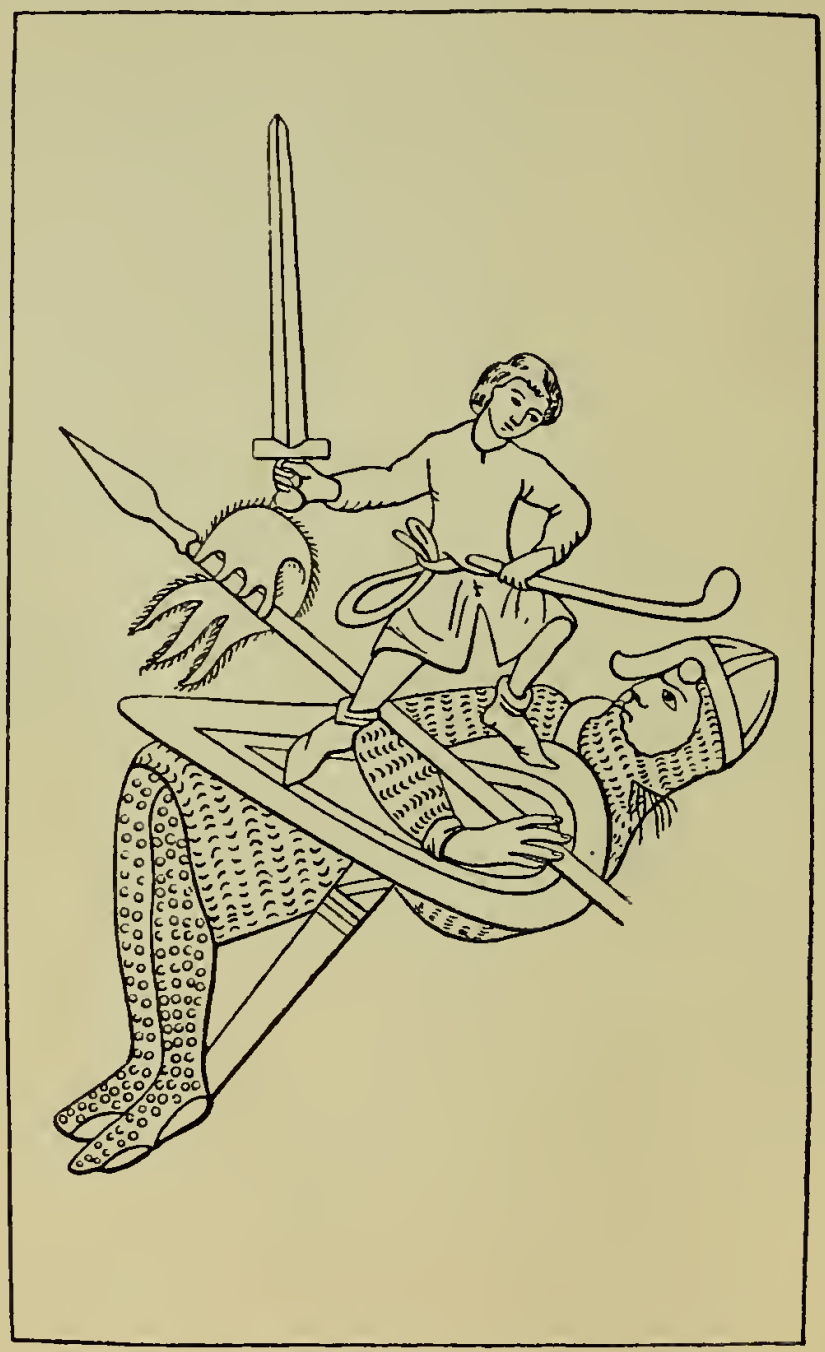


Fig. 23. ARMOUR, 1148
Add. MS. 14789

of Barry, who, speaking of an attack upon Abergavenny Castle, states that the Welsh archers discharged arrows which penetrated an oaken gate four fingers thick, and that the

feat was considered by the garrison as so remarkable that the gate and protruding arrows on both sides were carefully preserved. Their bows were made of the wild elm.

At the battle of the Standard the English yeomen, now expert in the use of the weapon, sent such a sheet of arrows into the charging ranks of the wild Galloway men, armed only with sword and buckler, that they failed to reach the English, and threw the other ranks of the Scottish army into confusion. The bowmen from South Wales took no small part in the conquest of Ireland in 1172, for a thousand went with Strongbow in the preliminary expedition, and when the King crossed he had with him many thousands of those skilful archers. From that period until the time when it was superseded by the firearm the English longbow was pre-eminently the foremost of missile weapons.

The Continental nations pinned their belief to the crossbow, the chief reason being not so much their faith in the weapon, but the simple one that their peasantry could not boast of the great muscles, sinewy thews, and accuracy of judgment with which the descendants of the Normans and Saxons were endowed. The charging of a crossbow was easily effected by muscular exertion or mechanical means, and the discharge of the bolt merely necessitated an alignment with the necessary elevation in the direction of the foe. The longbow not only entailed far greater muscular exertion properly applied, but the discharge of the arrow successfully was the result of a series of calculations based almost entirely upon the knowledge gained by constant practice. The English archer could discharge about twelve arrows while the arbalestier was manipulating three bolts, and the range and the effectiveness of the missile appear to have been about the same. The longbowman of medieval

times sent his arrow about 230 or 250 yards, though in later times such missiles have been sent much farther. Examples given by Sir Ralph Payne-Galway enumerate a shot in 1798 which reached 340 yards; one in 1856, 308 yards; one in 1891, 290 yards; and one in 1897, 310 yards. As these flights were made with the best weapons obtainable and under the best conditions, the distances given above may be taken as a fair average. The length of the longbow, which was made of yew, equalled the distance between the outstretched arms of the soldier, which was approximately his height. When bent the bow became half that length. The arrow varied at first, but finally became a yard in length. Owing to the perishable nature of wood, good specimens of the longbow of medieval times are very rare. In the Tower of London are preserved two longbow staves of yew recovered from the *Mary Rose*, which was sunk near Spithead by the French in 1545. The lengths are 6 feet $4\frac{3}{4}$ inches in both cases, with a girth at the centre of $4\frac{1}{2}$ inches. They taper to the ends, but have no horn tips or notches, and were probably untrimmed bow-staves such as a ship of war would carry in store. Yew bow-staves were at that period largely imported from the Baltic and also from Eastern countries.

In addition to the bow and a quiver of arrows holding twenty-four, the archer carried either an axe or a short sword, one or two wooden stakes, and a hammer with a leaden head. The latter was used for driving the stakes into the ground in front of the position as a guard against a cavalry charge, and was also of use for giving the *coup de grâce* to a fallen enemy. When used at short range the archer drew the bowstring toward the ear, and for longer distances toward the chest; the bow was held perpendicularly, and both eyes were kept open and fixed upon the object aimed at. The bowstring was of either hemp

or silk, twisted or plaited, and always of circular section where the notch of the arrow was placed.

The distances to which crossbow bolts were shot probably did not exceed 300 yards; there are traditionary flights of extraordinary distances attained which, as a rule, contain their own condemnation. The period during which the crossbow was much used in England was from 1190 to 1290.

The period under consideration, from 1066 to 1180, is very poor in respect of illuminated manuscripts from which to obtain data of military equipment. The Harl. MS. 603 (*c.* 1090) supplies a crude representation of a figure habited in a studded hauberk, split up front and back, and bearing a circular shield. Harl. MS. 2800, of the twelfth century, affords a few details, as does Harl. MS. 2803 (*c.* 1170), but when these are exhausted practically little remains.

Fig. 24
GUISARMES

The seals of ruling monarchs afford information, crudely expressed as a rule; thus on the Great Seal of Scotland, in the time of Alexander I, a Norman knight with three-pointed pennon, disked hauberk, and conical helmet is portrayed. The equipment of the common soldier of this period is interesting on account of its variety. The leather defensive jacket, or hauberk, was probably supplemented by the addition of a few scales or plates in imitation of the knightly example; the Saxon Phrygian helmet was still to be found, and also the circular shield. Of leg and arm defences they possibly had none, though the banding round the lower part of

the leg might perhaps be counted as a defence if of leather.

The Guisarme.—A weapon called the guisarme is supposed to have originated about this period, and was evolved from the scythe combined with the pronged fork. Wace, author of the *Roman de Rou*, states that it was broad, long, and sharp. It was fixed to a lengthy staff and inflicted ghastly wounds, the edges both front and back being razor-like (Fig. 24). This weapon was used as late as the battle of Flodden.

Fig. 25. CULTELLUS

The **cultellus** (Fig. 25) was a long dagger, or it might be compared with a short sword; it was chiefly used by the infantry for dealing with fallen knights who might be tempted to regain their saddle, or for action in close combat where staff weapons would be of little use.

The **pike** was a shafted weapon with a bewildering variety of heads, ranging from a simple point to long and fanciful designs. As a rule the head-socket, or a portion of it, was continued down the shaft for a considerable distance to guard the weapon against sword and axe cuts.

1 2

Fig. 26
WAR-SCYTHE AND GLAIVE

The War-scythe.—From the agricultural scythe the war-scythe and the scythe-knife were evolved. The war-scythe had a point which is slightly curved toward the cutting edge; the weapon was single-edged and provided with a good thickness of metal at the back (Fig. 26, No. 1). The war-scythe was no doubt the guisarme in an incipient form.

The **glaive**, or **scythe-knife**, often confounded with the guisarme, had a sharp edge upon the convex side and was also sharp-edged upon the other side as far down as the hook with which it was generally furnished; the latter was used by the infantry in combat for pulling horsemen out of their saddles (Fig. 26, No. 2).

CHAPTER III

THE CHAIN-MAIL PERIOD
(1180–1250)

Battles, Sieges, etc., during the Period

1192. Joppa.
1199. Châlus.
1204. Château-Gaillard.
1214. Bouvines.
1216. Berwick.
1217. Lincoln.
1224. Bedford.
1234. Grosmont.
1234. Kildare.
1234. Monmouth.
1234. Shrewsbury.

Special Additions, Improvements, etc., of the Period

(1) The adoption of chain-mail in place of the many varieties of defence in use previously.
(2) The selection of the heaume for the protection of the head, instead of, or in addition to, the defences formerly worn.
(3) The introduction of heraldry.
(4) The use of the sleeveless surcoat.

Examples for Study

The monumental effigies in the Temple Church, London.
Monumental slab of Sir John de Bitton (1227), Bitton, Somerset.

THE predominance of chain-mail over the various methods of defence used from 1180 to 1250 is so pronounced that it is an unmistakable and characteristic feature differentiating the later periods from the Norman. As mentioned before, the use of actual chain-mail among the Saxons and the Normans is open to doubt, owing to the illuminators' various methods of pictorially representing the same thing and the lack of definitiveness on the part of the historians. The representation upon the column of

Trajan of loricas which appear to be unmistakably chain-mail has been adduced as a proof that the Romans were acquainted with such armour, while the discovery of rusty masses of corroded iron rings of Roman origin in various parts of Britain seems to prove the fact. Certain it is that interlinked rings of bronze have been found in various places, which point to a Roman origin. In the British Museum there are lumps of rusty iron which look suspiciously like chain-mail; they came from Nineveh, but many of the finds in England, especially those which have come from peat bogs, are of such excellent workmanship that they must be ascribed to a late medieval period.

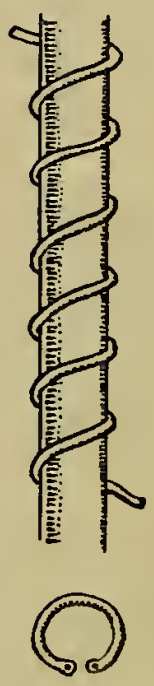


Fig. 27
METHOD OF MAKING LINKS FOR CHAIN-MAIL

It must be remembered that during the period we are now treating chain-mail had to be made from strips of wrought wire, because it was not until 1306 that Rudolph of Nuremburg is said to have invented the art of wire-drawing, whereby the making of chain-mail was immensely simplified. Fig. 27 illustrates the method of making the links by coiling wire round a stick. Upon cutting off the links and flattening them, only the two rivet holes need to be pierced in the ends and linked up, the rivets being inserted afterward. It is quite possible, however, that this discovery was only the revival of a long-forgotten art, since we know that two firms were making wire in Paris in the thirteenth century. In fact, wire-drawing may be of great antiquity.

The incredible amount of labour involved in making the links in a hauberk is realized when we remember that each end of a link had to be first flattened and then punched with minute holes; the two ends were brought together and overlapped by pincers, and a small rivet

inserted in the holes; heads on the rivet were formed either by squeezing together or by hammering. Four links were interlocked with every other link of mail (Fig. 28). During the Middle Ages the links were either welded, butted, soldered, or single or double riveted, while the reinforcing of various parts was accomplished by doubling or even trebling the rings.

The costly nature of chain-mail may be judged from the following, taken from the Guildhall Letter Books: "January 1275. John Ballard, armourer to the Guildhall, acknowledged himself indebted to another for the sum of fifteen shillings, or in lieu thereof to furnish a coat of mail of the same value." If allowance is made for the difference in money at that time compared with the value now, the coat of mail would be worth about £15 of our pre-War money.

Fig. 28
CHAIN-MAIL LINKS

As the weight of a knight's equipment was practically carried by the shoulders a horse was a necessity, whereby about one-half of the burden was relieved. Fighting on foot during both the Chain-mail Period and the Chain-mail Reinforced Period is seldom referred to in the chronicles of those times.

The Heaume.—The general defence for the head of the Norman knight had been the conical helmet of iron plates, under which was worn a defence of mail or jazeraint, similar in most cases to that of the hauberk, and forming a coif-de-mailles. It is also reasonable to suppose that in some instances the pot-de-fer, or iron skull-cap, was in use, since its value as a secondary defence would be apparent. The chief objection to these secondary

head defences was that they transmitted a blow directly to the person of the wearer, mitigating its severity to an extent commensurate with the protective strength of the conical helmet, a large portion of which was either touching or in close proximity to the skull. It was obvious, therefore, that any device removing the parts in contact would afford more protection, and the outcome of this reasoning resulted in the pot-heaume, which, in one form or another, was to be in use for four or five centuries.

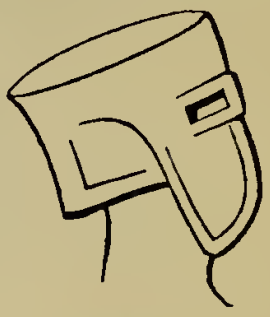


Fig. 29

The evolution of the heaume was gradual, but the starting-point was the conical helmet. To the latter ear-flaps were added, which in time became so large that they met the nasal in front and absorbed it, and thus a single piece of metal sufficed for the former three parts. This piece, with an opening left for vision, would be short at the back, and this stage of development is exemplified upon the Great Seal of Scotland of Alexander II, who became king in 1214 (Fig. 29), and also shown in Fig. 30, which is taken from a Continental example belonging to the end of the thirteenth century. The heaume of Cœur-de-Lion, as shown upon his Great Seal, exhibits a certain amount of shortening at the back (Fig. 31). In the disused chapel of Kirkstead, Lincolnshire, is the sepulchral slab of Hugh Fitz Eudo, where the heaume is shown with bands in front

Fig. 30
POT-HEAUME OF THIRTEENTH CENTURY

forming a cross, and with an occularium on each side of the central band (Fig. 32). Sometimes these bands crossed each other on the top of the heaume.

Fig. 31. HEAUME OF CŒUR-DE-LION

Very early in the illustrations of knights with heaumes the latter are shown with small breathing-holes in the front as in Fig. 33, or with rectangular apertures for the same purpose as in Fig. 34, etc. The heaume was not always cylindrical in its early stages, as is shown by Fig. 35, taken from a carving in the presbytery arcade of Worcester Cathedral, and dating from *c.* 1220. The cylindrical heaume of Hugo de Vere, Earl of Oxford (Fig. 34), has large rectangular breathing-holes, and shows

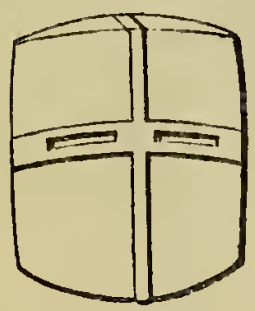


Fig. 32

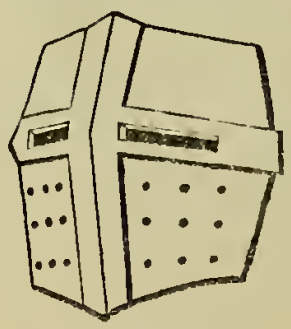


Fig. 33

Fig. 34

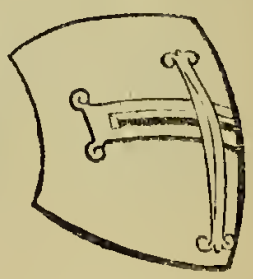


Fig. 35

distinct traces of the evolution of the heaume, before referred to (the joining up of the cheek-guards and the nasal), though this is better exemplified in Fig. 29. The absence of cross-bands is a marked feature of the heaume (Fig. 36) taken from Harl. MS. 3244, dated *c.* 1250. The head

defences of the period which have been preserved in museums, churches, and elsewhere all show similar construction; the heaume is either a single plate of metal or two plates beaten into shape and riveted together; the cross-pieces in the front and on the top and sides are thicker, and by being riveted firmly greatly strengthen the plates. It is open to question whether the heaume represented on the effigy of Geoffrey de Magnaville, Earl of Essex, in the Temple Church, London, was adapted for a visor or not (Fig. 37), but it was probably so furnished.

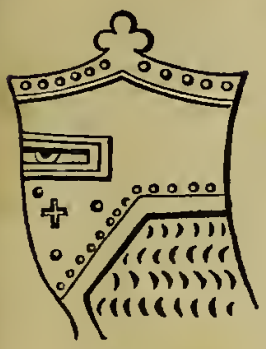


Fig. 36

The heaume without a movable visor is essentially an English invention; to the lance, javelin, and arrow it presented a glancing surface, and to some extent distributed or parried the blow from a mace and, under certain conditions, from a sword. Its deadliest foe was the battle-axe.

Heraldry.—When and how heraldry originated is a moot point which cannot yet be looked upon as definitely settled. Some profess to see in the fantastic designs upon Saxon and Norman shields a kind of heraldry, but no authentic example of a man being known by such a sign, or of his having transmitted the same to his son, has been recorded.

Fig. 37
GEOFFREY DE MAGNAVILLE, EARL OF ESSEX
Temple Church, London

A great probability exists that the early stages of heraldry date from the time of the First Crusade, which involved the capture of Jerusalem in 1098. The gathering together of so many nobles all habited to a great extent in the same style of equipment must have led to terrible confusion if no distinguishing marks differentiated one

leader from another. A certain amount of the face could be seen, however, in spite of the nasal, and possibly the Crusaders rested content with that. Nevertheless, the need of a distinguishing mark would be apparent to all. At the end of the eleventh century in the *Leys de Partida* (Spanish) occurs the following: "Some of the knights placed upon their armour signs that were different one from another in order to be known thereby, while others placed them on their heads, or on their horses." It is significant that Anna Comnena, who died in 1148, does not mention heraldic distinction in connexion with the European warriors who came to Constantinople in the First Crusade.

Upon the cap of Geoffrey of Anjou, who died in 1150, appears a lion, and four or more are delineated upon his shield; this is generally considered one of the earliest (if not the earliest) examples of heraldry which have been handed down to us. Upon the helm depicted in Fig. 30, from the *Eneit* of Henrich von Veldeke, a red lion, possibly made of cuir-bouilli, is shown, an undoubted crest. Apart from the necessity of having a distinguishing mark, a crest of this nature would add to the defensive power of knightly armour, for a sword-cut which had to pass through a tough piece of boiled leather before reaching the main objective would have its force considerably modified. When, however, the pot-heaume became universal, as it did in the Crusade of 1190, and the whole of the face of a leader became hidden, distinguishing marks became imperative, and it causes no surprise to find that the earliest authentic example of a crest fulfilling all the necessary conditions is to be found upon the heaume of Richard Cœur-de-Lion, who has upon his Great Seal a lion *passant* (see Fig. 31) with a fan-shaped ornament above it. Upon the shield are depicted three lions *passant guardant*.

The military leaders were all landowners under the feudal system, and consequently formed the aristocracy of the country; the arms they assumed descended naturally to their heirs with the estates, and thus became hereditary. The strange thing to notice is the fact that heraldry comes to us—so far as our knowledge goes—with all its rules, language, and established procedure fully developed, and we know nothing of the stages that must have been necessary in the process.

In this respect heraldry may be compared with Early English architecture, which also is found fully developed; any alteration subsequently made was simply a modification of preceding conditions. We know of no gradual building up in either case; each appears before an astonished world in its full maturity.

The Surcoat.—Toward the end of the Norman Period the skirt of the tunic worn under the armour began to appear below the hem of the hauberk, and by 1190 had reached to the knees; fashion changed with great rapidity, and shortly afterward we find it almost to the ankles. The Great Seal of Richard I exemplifies this phase. Suddenly the whole tunic emerged and appeared upon the outside of the armour, leaving the gambeson (the quilted body armour) to bear the weight and chafing of the chain-mail. The first English seal to exhibit this change was that of King John, while a French seal of the Dauphin Louis (1216) also shows the innovation. The tunic thus exposed became the surcoat. It was sleeveless, reached to the heels, was slit up in the front and also, probably, behind for convenience in riding.

The defensive armour at this period was perhaps the worst that could be devised for fighting under an Eastern sun, seeing that the whole weight of the hauberk depended from the head and shoulders. By the adoption of the

surcoat the inconvenience caused by the heat would be modified to some extent, as the rays of the sun would not now fall upon the chain-mail. It must not be inferred that the latter was always polished and bright; the surface where rubbed by the clothes was so undoubtedly, but the greater part must have been of a rusty hue, and the method of preparing the imitation chain-mail for our pageants by dyeing it a rusty red and touching the surface with a silver-like powder always produces a satisfying effect to the critical eye. The medieval method of cleaning chain-mail was by putting it into a barrel with sand and rolling the barrel.

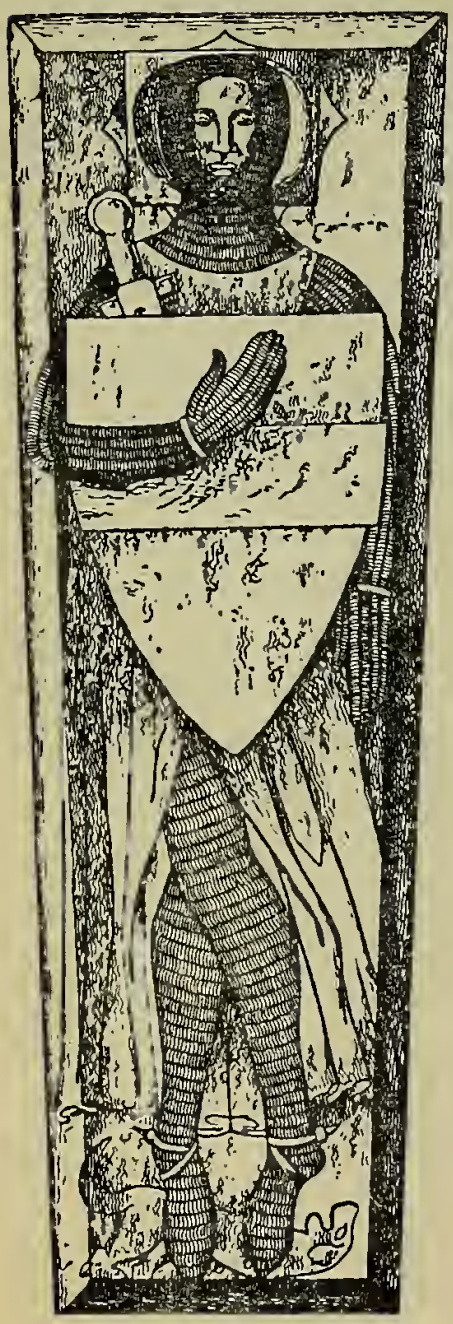


Fig. 38
SIR JOHN DE BITTON
Bitton, Somerset

The Shield.—A modification of this defence occurred shortly before the reign of Richard I; the length became curtailed and the top was made straight. By these alterations the former kite-shaped shield was transformed into the 'heater-shaped' shield which remained in use for two or more centuries. The shape is well shown upon the monumental slab of Sir John de Bitton (1227) (Fig. 38), in Bitton Church, Somerset, where the shield, necessarily shown flat but doubtless convex in reality, is of the true heater-shaped form. The arms shown are a fesse, and the absence of a guige hanging round the

neck should be noticed. The sleeveless surcoat reaches nearly to the ankles, while the length of the hauberk is not apparent. The sword-hilt, with its two short quillons and knob pommel, and also the method of fastening on the prick spurs of the period, are points of interest. The strap for closing the opening whereby the head could be inserted is visible upon the neck. No heaume is shown, but the flat appearance presented by the top of the head makes it probable that a pot-de-fer was worn under the coif-de-mailles or hood of chain-mail. The mail gauntlets are distinct from the sleeves of the hauberk, being fastened to the latter by straps or bands, while the chausses are shown continuous with the mail covering the feet. The artist evidently did not 'cut his garment according to the cloth,' but made the figure so large that an infringement upon the bevelled edges of the slab became necessary.

Equipment of the Man-at-arms.—The Harleian MS. 4751 (*c.* 1220) furnishes us with some interesting data respecting the equipment of the ordinary man-at-arms at that time (Fig. 39). An arbalestier is shown standing in the bretasche of a castle, discharging a bolt which transfixes one of the assailants, an archer, whose arrow has apparently missed its objective. The arbalestier has a heaume, narrowed at the back, a short-sleeved hauberk of mail, and a sleeveless surcoat bearing his arms upon the breast, apparently a cross with annulets. The crossbow used is of the simple, early pattern, discharging with a long trigger, the cord being pulled back by the hand. The stirrup for placing the foot in while adjusting the string should be noted.

The leading figure among the besiegers is a foot-soldier with apparently no defences except a chapelle-de-fer. He is holding a military pick, a weapon prevailing at that

period for piercing through chain-mail; a variety which presented two points, one on either side, was called the bisacuta and is often mentioned. The third figure, of which only the heaume is visible, probably represents an arbalestier, who has an archer behind him; the fifth figure is a slinger, completely without defensive equipment according to the prevailing use, as men wielding that weapon stood as a rule so far away that it was not even considered a

Fig. 39. MEN-AT-ARMS (*c.* 1220)
Harl. MS. 4751

necessity. He has not even a hat. The sling was used by the Saxons and is figured in Cott. MS. Claudius B. IV. and in the Bayeux Tapestry; it was still in use as late as the sixteenth century. Froissart tells us that at the battle of Navarete "they broke helmets and skull-caps so that they wounded and unhorsed many of their opponents." 'Balistarii' was the ancient term for slingers, and the Balearic Islands owe their name to being inhabited by a race skilled in the art. In the Rotunda at Woolwich

are preserved sling-stones $2\frac{1}{3}$ and $1\frac{1}{2}$ inches in diameter respectively; they are covered with lead and came from Rhodes.

The fustibal, or staff-sling, apparently came into use during the reign of Richard I; the weapon is often depicted in manuscripts showing sieges of castles, the slingers being located in turrets or behind the battlements of high towers. They also appear in naval combats upon the lofty forecastles of ships. The fustibal had a staff of about four feet in length; one termination of the sling proper was fixed near the end, and the other termination automatically slipped off the end of the pole in the act of throwing. Large and heavy stones were cast to a considerable distance by this sling, and in the wars of the sixteenth century it was in use for hurling grenades.

The rearmost of the six men-at-arms depicted in Fig. 39 is habited in a hauberk and coif of mail and armed with an axe. In the Bodleian Library, Auct. D. 4. 17, dated *c.* 1250, an axeman is shown with a coif of mail under a chapelle-de-fer and arms covered with sleeves of mail; the rest of his defence is of leather and pourpointerie. In the time of Richard I the equipment of the English foot-soldier was "an iron head-piece, a coif and coat of mail, and a tissue of many folds of linen called a pourpoint, very difficult of penetration." When on the defensive a man in the front rank held a shield in his left hand, rested the butt of his lance on the ground, and knelt with his right knee on the ground. Between every two lances was a crossbowman with a rear-rank man to load.

The longbow made steady progress in efficiency during this period, and many of the battles fought owed their decision to its use; the English yeomen began to evince that singular proficiency in archery which afterward gained

them the distinction of being called "the finest infantry in Europe." We learn from Richard of Devizes that at the siege of Messina by Richard I the native soldiery were unable to man the walls by reason of the deadly accuracy of the English archers, because, he says, "no one could look out of doors, but he would have an arrow in his eye before he could shut it."

CHAPTER IV

THE CHAIN-MAIL REINFORCED PERIOD (1250–1325)

Battles, Sieges, etc., during the Period

1263. Largs.
1264. Lewes.
1265. Evesham.
1266. Chesterfield.
1282. Hawarden.
1294. Conway.
1296. Berwick.
1296. Dunbar.
1297. Stirling.
1298. Falkirk.
1302. Cambrai.
1314. Bannockburn.
1322. Boroughbridge.

Special Additions, Improvements, etc., of the Period

(1) Reinforcement of the chain-mail.
(2) The invention and use of banded mail.
(3) Introduction of the conical heaume resting upon the shoulders.
(4) The use of ailettes.
(5) Development of the crest.

Examples for Study

Effigies: A knight of the de Sulney family (*c.* 1360), Newton Solney, Derbyshire; two late fourteenth-century effigies in St Peter's Church, Dorchester.

Brasses: Sir John d'Aubernoun the elder (1277), Stoke d'Abernon, Leatherhead, Surrey; Sir Roger de Trumpington (1289), Trumpington, Cambridge.

With the advent of the Chain-mail Reinforced Period we stand upon firmer ground with regard to military as well as ecclesiastical and civil dress, for up to this time we have been forced to depend upon the meagre descriptions of the early writers, with designs (some of them fancifully portrayed) in the illuminated manuscripts, and a few monumental effigies in stone.

The unique series of English monumental brasses now occupies a higher position than formerly owing to the destruction during the Great War of so many of the few remaining specimens preserved in Belgium and the north of France. They have met the same fate that has befallen church bells and nearly all objects of copper and brass. We say 'English brasses' advisedly, since the number remaining upon the Continent even before the hostilities was small; there are none in Scotland or Ireland, while Wales has only a few, and even those are of but small interest. There are probably about 5000 brasses remaining in England, and these are to be found chiefly in the southern and eastern counties and their immediate neighbourhoods.

The armour as depicted upon these brasses is remarkably accurate from the year 1277 to the end of the Wars of the Roses, when a decadence of merit began to set in, and brasses deteriorated, some of them in the Tudor Period being ludicrously incorrect. Actual portraiture was attempted successfully in many specimens of early date.

Reinforced Chain-mail.—The oldest brass remaining, fortunately for our purpose, is a military example, that of Sir John d'Aubernoun, preserved at Stoke d'Abernon Church, near Leatherhead, Surrey (Fig. 40). The figure is over six feet in height, and fully represents the military dress of the chain-mail period, with the addition of reinforcing knee-cops, thus presenting the incipient stage of the plate armour which was destined eventually to supersede the mail and lead to its almost entire abandonment.

The coif-de-mailles in the d'Aubernoun brass is shown continuous with the hauberk, and, judging from the protuberances over the ears, the curved mark upon the

forehead, and the height of the crown of the head, a pot-de-fer was hidden under it. The mail chausses covering the feet and legs have the prick spur fastened over them by straps. The sleeveless surcoat is split up the front to the waist; it is apparently of a rich material and has a fringed edge. A fragment of a surcoat of this period has survived to the present time and is described in vol. vi of *Vetusta Monumenta*. It belonged originally to William de Fortibus, who died in 1260, and "consists of a coarse lining on which fine linen had been laid; on this worked much coloured linens sewn on, and embroidery, coats of arms." The genouillières, or knee-cops, may possibly be of steel or bronze, but by their ornamental appearance are most probably of cuir-bouilli. The introduction of these additions was not entirely due to the protection they offered, but was in part prompted by the intolerable drag of the mail upon the knees; by terminating the chausses above the genouillière and affixing them again to the lower edge, the strain was minimized. The gauntlets, continuous with the mail sleeves, are not divided for the fingers. The heater-shaped shield showing the arms, azure, a chevron, or, has a guige supposed to be decorated with the fylfot,

Fig. 40
SIR JOHN D'AUBERNOUN THE ELDER (1277)
Stoke d'Abernon, Leatherhead, Surrey

swastika, or gammadion, and roses. The four conjectured representations of this fylfot design are, however, not convincing. The sword is long and straight; the quillons short and drooping toward the blade; the grip slightly swelling, and the pommel globular with a surface enrichment.

Fig. 41. Massacre of the Innocents (*c.* 1290)
Add. MS. 17687

This is the only brass in existence which shows the lance, and it is represented here in a shortened form so as to agree with the dimensions of the brass. A small fringed pennon appears upon it charged with the same bearings as the shield. The sword-belt is of peculiar design, as it grips the scabbard at two points—a small subsidiary strap holding the points together. It is unfortunate that the arrangement of the surcoat hides a portion of the legs, and renders them apparently malformed to the casual glance.

A very interesting representation of the equipment of the ordinary foot-soldier of *c.* 1290 is given in the Add. MS. 17687, representing figures from the "Massacre of the Innocents," a theme which possessed a peculiar fascination for the medieval mind (Fig. 41). The whole of the

figures are not given, the background being filled by weeping mothers, the bodies of headless children, etc., while the foot of a suspended child about to be dashed upon the ground is seen in the grasp of the central soldier. The variety of equipment is a marked feature. Upon the middle figure we can see the rim of a pot-de-fer which is covered by studded pourpointerie, and this defence is continued as a neck-guard and pectoral. The surcoat is worn as a tunic underneath the hauberk, differing in this respect from the companion figures. The hauberk is of banded mail, the nature of which will be dealt with later. The lower limbs are cased in leather or some similar material; genouillières of cuir-bouilli cover the knees, and reinforcements, probably of the same material, appear below them.

The figure upon the left is in banded mail throughout, while that to the right appears in a mixture of studded pourpointerie and banded mail with genouillière reinforcements. The swords are all of the same pattern, with lengthy straight double-edged blades, short quillons, a small grip, and triangular pommel.

Banded Mail.—A new method of defence came into vogue toward the end of the thirteenth century and remained in almost universal use for over a hundred years. Both the knight and the ordinary soldier appeared in it, and it is represented constantly in illustrations of the period and occurs on many brasses and effigies; and yet at the present time we are ignorant of its nature. It is one of the interesting puzzles of armour, which has been widely debated, and many solutions have been advanced, the majority being unsatisfactory. Its appearance may be seen in Fig. 41, where portions of all three figures shown are in banded mail. No actual specimens of this defence have been preserved to the present time. Upon

various brasses where the mail occurs it is to be noted that it has the same appearance inside as outside (see the Creke brass, Fig. 57). Fig. 42 shows a hauberk of banded mail. The appearance of banded mail is clearly seen upon the stone effigy of a knight of the de Sulney family at Newton Solney, Derbyshire (Fig. 43, and see Fig. 88).

Meyrick suggests that flattened rings of iron were

Fig. 42
MAIL HAUBERK

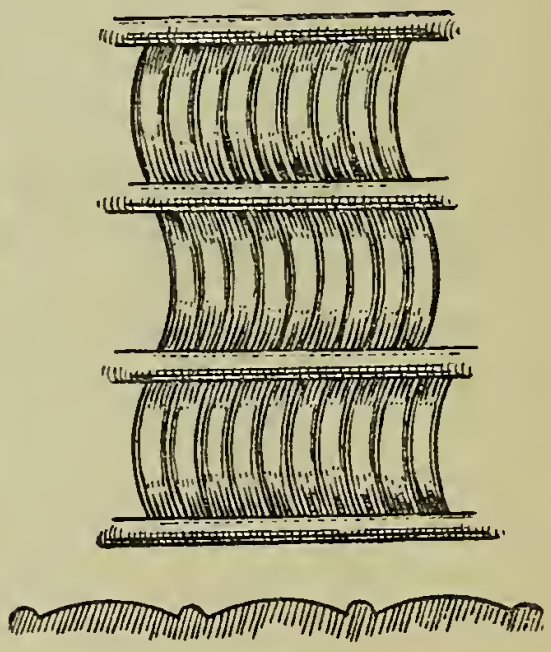


Fig. 43
BANDED MAIL ON EFFIGY OF KNIGHT OF THE DE SULNEY FAMILY

threaded by a leather band and sewn down upon a fabric; that another piece of similar material was placed upon the rings and sewn again, while a cord was fixed along the line of the junction. The excessive weight and lack of pliability are against this supposition, inasmuch as folds are shown in the mail in illustrations, and consequently it must have been flexible.

J. G. Waller suggests that it was simply chain-mail, a band of leather being drawn through every alternate row

of rings. But the excessive cost of such mail would prevent its general use by the men-at-arms.

Its adoption coincided with the increased use of the longbow, which at the time underwent an extraordinary development. Concurrently there was also an extensive use of cuir-bouilli for armour, though, as the mail is shown in illuminated manuscripts with a metallic surface, it could not have been entirely of that material. The present writer has suggested in a former work[1] the possibility of its being made according to Fig. 44, where washers of leather

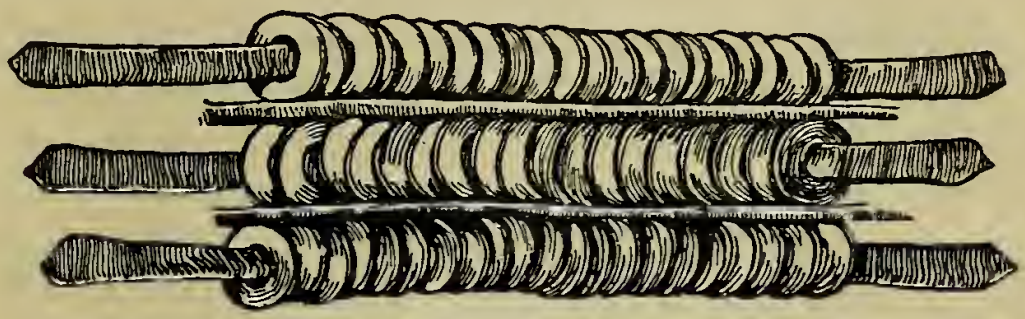


Fig. 44. Suggested Construction of Banded Mail

threaded with strips of the same are mounted in rows flattened alternately, while to a narrow piece of leather running between each row the rings are sewn above and below. The example so constructed was pliable, light, appeared the same on both sides, and had the same general aspect as that seen in Fig. 43. If every alternate washer were of iron instead of cuir-bouilli, or even if a metal one were placed after every two, the limners would be justified in representing the mail as having a metallic appearance. It would not be prohibitory with regard to cost. The very large rings seen upon the soldiers would be oval in shape.

Against the sword, lance, javelin, mace, and shafted weapons generally, banded mail would offer resistance equal to that of the defences preceding it.

[1] *British and Foreign Arms and Armour.*

Its chief aim, however, was to provide the utmost protection possible against the rain of arrows which was fast becoming the most serious mode of offence in battle.

If an arrow struck banded mail at right angles it would have to penetrate two flattened rings, which might be of iron or cuir-bouilli, or one of each material, in addition to a thick piece of leather between. If the missile struck at an acute angle it would either inflict a glancing blow or would penetrate between the rings. Seeing that these were fastened firmly to other rings both above and below, the momentum of the missile would possibly be expended in overcoming that resistance. If the arrow struck against the leather band joining the rows the resistance would come from the rings both above and below; this portion would probably be the most vulnerable. Medieval artists have represented warriors in combat with arrows sticking out from their harness like "quills upon the fretful porcupine," and squires after the fray engaged in pulling these intruders out.

At what period the breastplate and backplate were first introduced is a disputed point, but probably they had been in use during the early Norman era. That they were utilized by the opening of the Chain-mail Reinforced Period is evident from one of the effigies in the Temple Church, where the sleeveless surcoat exhibits under one arm a pair of plates covering the breast and also the back and united at the sides of the figure by leather straps. They were apparently flat iron plates, or plastrons-de-fer, not modelled to the body as the later cuirasses were, and were partially kept in place by straps over the shoulders. A plastron-de-fer is referred to in a manuscript of the time of Richard I.

The Conical Heaume.—The conical heaume introduced at this time is shown upon the well-known Trumpington

brass (1289) in Trumpington Church, near Cambridge (Fig. 45). Sir Roger is represented cross-legged, and the artist has thus avoided the stiffness of the d'Aubernoun brass (see Fig. 40). This cross-legged position has given rise to much controversy respecting its signification, the popular idea being that the person represented was a Crusader, or else had made a pilgrimage to the Holy Land. Investigation has revealed the fact that many of those represented in a cross-legged position had never been to the Holy Land in any capacity, while other *bona-fide* Crusaders have straight-limbed effigies. Two examples at least are in existence of knights represented both cross-legged and cross-armed, one at Reepham and another at Ingham, Norfolk, but neither had visited Palestine, while in St Peter's Church, Dorchester, lie two late fourteenth-century effigies, both cross-legged, of men who died long after the Crusades had ceased. The general idea now held is that persons so distinguished were benefactors to the Church, though it may be suggested, and with reason, that the artist chose that position as being more easy and lifelike.

Fig. 45. Sir Roger de Trumpington (1289)

Trumpington, Cambridge

The equipment portrayed in the Trumpington brass is similar to the d'Aubernoun example in most particulars, but the great heaume with its guardian chain fastened to

the girdle is a noticeable exception. Subsequently, the method of fastening the heaume to the person was by means of a staple affixed to the plastron-de-fer, or hidden breastplate, an opening being made in the covering garments to allow the attached chain to protrude. The heaume is of massive proportions and sufficiently lengthy to permit of the lower part resting upon the shoulders and thus relieving the head of the great weight. The apex is furnished with an aperture for holding either the contoise, a long flowing veil, or else for affixing the

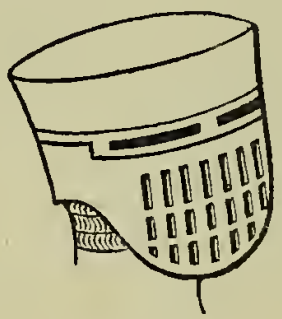


Fig. 46

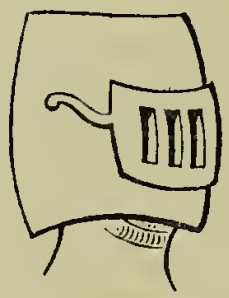


Fig. 47

crest. The Trumpington arms (see Fig. 45) depicted upon the shield are "azure, crusily and two trumps in pale, or."

As we have seen, the conical heaume was a development of this period and is delineated upon the Trumpington brass. The heaumes immediately preceding it in point of date show how it gradually evolved into that form; for example, Fig. 46, the heaume of Robert Fitz-Walter (*c.* 1270), shows a lengthened frontal which nearly reaches the chest, and a multiplicity of breathing apertures. The flat-topped cylindrical heaume was introduced about the middle of the thirteenth century, and one of the earliest figures which illustrates it is that of Ferdinand, King of Castile, in the windows of Chartres Cathedral (Fig. 47).

The round-topped heaume makes its first appearance about 1270, and an example from Cottonian Roll XV. 7 (Fig. 48) is reproduced here. Although it is not long enough to reach to the shoulders the tendency to lengthen is clearly marked. In point of ornament it presents a decided advance upon most of the preceding heaumes—a feature which may also be perceived in Fig. 49, which represents the heaume of Louis of Savoy (1294). The latter, in addition to an imposing crest, has a movable ventaille in the form of an eagle displayed with vertical

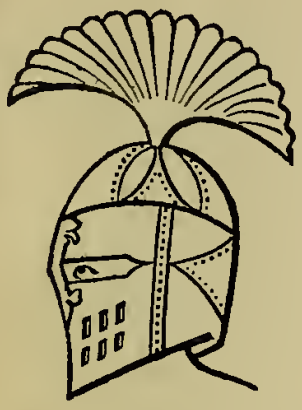


Fig. 48

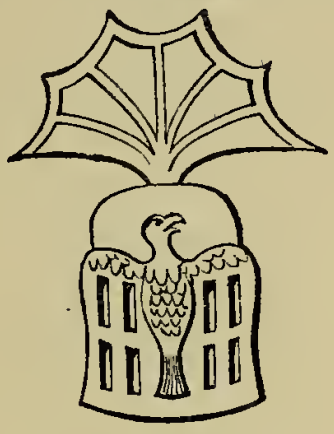


Fig. 49

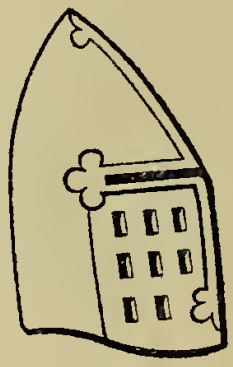


Fig. 50

apertures for breathing and to serve the purpose of an occularium.

About 1280 the great heaume appears, of the sugar-loaf pattern, with strengthening bands in front disposed in the pattern of a cross. Fig. 50 is a representation of one from Roy. MS. 20 D. I, and the heaume upon the Trumpington brass is similar in outline. Laces for holding the helm in position are frequently apparent in illustrations.

Ailettes (*Fr.* 'little wings') were introduced during the last part of the thirteenth century. These peculiar additions have originated a considerable amount of discussion respecting their use. They appear sometimes at the back of the arm (as in Fig. 51), also upon the side of

the upper arm (Fig. 52), likewise resting on the shoulder, and were of all shapes and sizes. In some cases they bear heraldic cognizances. They seem to have been made either of leather or of metal; as the German name for them was 'little shields,' their purpose was possibly defensive. Against a sweeping sword-cut a thick plate of steel would undoubtedly be effective in guarding the neck, or, if they were of cuir-bouilli, would mitigate the effect. The method of fixing the ailettes by a leather band round the neck is well shown in the representation of Lancelot of the Lake in the Bibliothèque Nationale in a manuscript of the fourteenth century, where the curious crest surmounting the basinet is also noticeable (Fig. 53).

Fig. 51. AILETTES (13TH CENTURY)

Sir Roger de Trumpington was one of the knights who took part in the Windsor Tournament of 1278, and in the Roll of Purchases ailettes are mentioned which were covered with a kind of cloth. It is worthy of remark that one of the earliest examples remaining to us of the use of ailettes is furnished by his brass (Fig. 45), on which they may be perceived standing upright behind the shoulders and bearing his heraldic

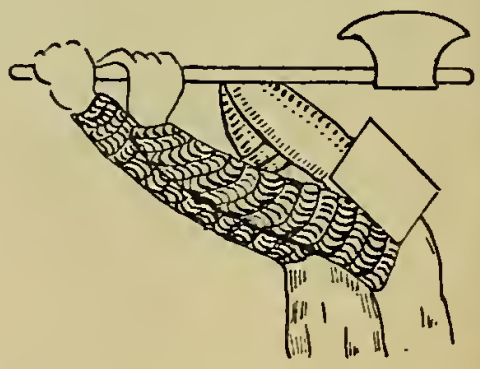


Fig. 52. BANDED MAIL AND AILETTE

cognizance. This detail furnishes us with an example which illustrates the care that must be exercised in the reading of a brass, for ailettes were not affixed in the position shown, but upon the upper side of the arms or upon the shoulders. Only perpendicular lines representing the edges of the ailettes should therefore properly appear, but the engraver has deliberately pushed them back and given them a right-angled turn so that they are parallel with the plane of the front part of the body. There are a number of points of this character where the artist in brass has taken liberties with his subject and where a student of brasses may possibly be led astray.

Fig. 53
METHOD OF FIXING AILETTES
From C. ffoulkes' "Armour and Weapons," by permission of the Clarendon Press, Oxford

We may mention here that the Trumpington brass has not been finished, inasmuch as the delineation of the chain-mail has only half the necessary work lavished upon it and is inferior to that of the d'Aubernoun brass (see Fig. 40), while the spur-strap is ornamented in one case and left plain in the other.

Fig. 51, which has been referred to, represents a knight and some men-at-arms; it is from the Sloane MS. 346, a Bible, and pictures King David and his host on their way to punish the churlishness of Nabal. The king wears a heaume with a rising ventaille working upon side-hinges; his mail is of the banded variety and reinforced with coudières, a protection of plate or leather for the elbows. His genouillières or knee-coverings cannot be perceived, but they are doubtless there, because the man behind him is furnished with them. Leather gauntlets appear to be represented on the king's hands. Immediately behind him is a warrior in a chapelle-de-fer or iron

hat, with a brim and a low comb; this is a type of headgear in use for many centuries, and one with which we are now, after the throes of the Great War, unpleasantly familiar. A French pot-de-fer, or chapelle-de-fer, of *c.* 1300 is shown in Fig. 54. The third figure in the cut has a gorget of pourpoint with coudières and genouillières of plate over banded mail; the headpiece shown is a prototype of the basinet, which prevailed during the succeeding century. The spear and sword show no deviation from the prevailing type.

Fig. 54. CHAPELLE-DE-FER (*c.* 1300)

Fig. 55 also appears in the Sloane MS. 346. We may quote Cutts for the following excellent description of it:[1] "The next cut is a spirited little sketch of a mounted knight. . . . The horse, it may be admitted, is very like those which children draw nowadays, but it has more life in it than most of the drawings of that day; and the way in which the knight sits his horse is much more artistic. The picture shows the equipment of the knight very clearly and it is specially valuable as an early example of horse trappings, also as an authority for the shape of the saddle, with its high pommel and croupe. The inscription over the picture is, *Tharbis defendit urbem Sabea ab impugnanti Moysi*, and

Fig. 55. MOUNTED KNIGHT *Sloane MS.* 346

[1] *Scenes and Characters of the Middle Ages.*

over the head of this cavalier is his name, *Moyses*—Moses as a knight of the end of the thirteenth century!"

By a statute of the Realm made in 1285 (13 Edward I) it was enacted that "Every man was to have in his house harness to keep the peace. Every man between fifteen and sixty should be assessed and sworn to armour according to their lands, *i.e.*, £15 land and goods 40 marks to have a hauberk of iron, a sword, a knife, and a horse; of £10 land and goods 20 marks a hauberk of iron, a sword, and a knife; of £5 land a doublet, a breastplate of iron, a sword, and a knife; of 40*s.* a sword, bow and arrows, and a knife; less than 40*s.* shall be sworn to keep guisarmes, knives, and other weapons; others to have bows, arrows, and bolts."[1]

Fig. 56. FALCHION

Among the weapons introduced about this time was the falchion or fauchon, a peculiarly shaped broad-bladed sword intended for cutting only and not for thrusting. It was a small kind of scimitar, and is mentioned in the *Romance of Richard Cœur-de-Lion* as "broad and keen." There are two varieties, one with a blade becoming wider toward the point, the edge convex, and the back concave (Fig. 56), and the other differing only from the first in having a straight back.

The stabbing-sword (*estoc*) possessed a long, narrow blade and was designed for thrusting; at times it is represented as being two-handed.

[1] The hauberk would be a coat of mail; the knife, a dagger; the doublet, a pourpoint or padded garment; the breastplate, a plastron-de-fer or plate of iron; the bolts, quarrels.

The anelace was a variety of the dagger with the blade very broad at the base and double-edged. It was much used during the thirteenth and following centuries, not only by the military, but as the common arm of the laity.

From documents preserved in the Guildhall, London, we learn that in 1314 the Mayor of London and the Sheriffs arranged for a force of men to be armed and proceed to Berwick for the defence of that town. They purchased

120 haquetons at 6*s.* 9½*d.* each;
120 basinets with collarettes of iron at 5*s.* 1*d.* each;
120 arbalests at 3*s.* 5*d.* each;
120 baldrics at 12*d.* each;
120 quivers at 30*s.* for the whole;
4000 quarrels at 20*s.* the thousand.

"The men were engaged for twenty-eight days at fourpence per head per day. They had vintainers (Fr. *vingt*) or commanders of twenty men in charge of them. The carriage of these goods to Berwick was no less than 117*s.*"[1]

We gather from this extract that the arbalestier was protected by a haqueton or quilted coat of stuffed material and a basinet, the latter being provided with a 'collarette' of iron. This was probably a bent piece of steel hinged or pivoted on either side of the basinet and falling down so as to cover the chin and throat.

The decline of chain-mail as a defence may be ascribed to the following causes: the coats of mail used during the earlier periods of the Crusades were sufficiently strong to

[1] It has been estimated that the value of money in the fourteenth century may be taken approximately at fifteen times the value immediately previous to the Great War of 1914–18.

resist the arrows of the Saracens, but failed to keep out those from an English longbow, nor were they proof against the improved crossbow; chain-mail was often broken or torn by a lance-thrust, and it was a bad defence against a battleaxe or mace, for the body could be badly injured even if the mail remained unpierced. When plate came in, the defence became for a while more efficacious than the attack.

CHAPTER V

THE CYCLAS PERIOD
(1325–35)

Battles, Sieges, etc., during the Period

1327. War with the Scots.
1332. Dupplin Moor.
1333. Halidon Hill.
1335. Culbleen.

Special Additions, Improvements, etc., of the Period

(1) Adoption of the cyclas.
(2) Introduction of sollerets, demi-jambarts, and demi-brassarts.
(3) Abolition of the ailette.

Examples for Study

Effigies: A de Bohun (1321), Hereford Cathedral; Prince John of Eltham (1334), St Edmund's Chapel, Westminster Abbey; a Pembridge knight, Clehongre, Herefordshire; Sir Oliver de Cervington (1348), Whalley, Somerset.

Brasses: Sir John de Creke (*c.* 1325), Westley Waterless, Cambridgeshire; Sir John d'Aubernoun the younger (1327), Stoke d'Abernon, Surrey; Sir John de Northwode (*c.* 1330), Minster, Isle of Sheppey, Kent.

The Chain-mail Reinforced Period had proved itself to be another epoch during which the contest for supremacy between arms and armour had been maintained vigorously on both sides. So long as the methods of defence were found to be capable of withstanding the onslaughts of the weapons used against them they were retained, but now the use of pourpointerie, cuir-bouilli, chain-mail, and a small quantity of plate was proving ineffective, and

the Cyclas Period supervened, during which men pinned their faith upon another kind of defensive equipment. This consisted of a multiplicity of textile defences thickly padded, loose upper garments, and a judicious mixture of chain-mail and plate.

The efficacy of a loose, flowing robe had been very early noted as an efficient method of mitigating the effect of a sword-cut by hampering its movement, and was undoubtedly one of the reasons why the long surcoat of the Chain-mail Period was not discarded sooner. The Cyclas Period has one outstanding feature, which differentiates it from all others, in the multiplicity of defences which characterized it; this, combined also with its undoubted picturesqueness, renders it a favourite as a rule among students of armour.

The Cyclas (or **Cyclatoun**).—This garment gives its name to the period under discussion; it was of such a unique nature that no more fitting term could have been selected. It consisted of a tunic or surcoat of linen, silk, or other pliable material, laced up at the sides and reaching to the calf at the back, while the front part was cut short for convenience when mounted and in order to give freedom of motion to the under defences and not to hamper the movement of the lower limbs. Like the surcoat of the preceding period it had no sleeves. The cyclas followed no universal rule respecting the colour or the material; it is represented in manuscripts as of all hues, but it is, nevertheless, apparent from these that green was strongly in favour as a colour and that silk prevailed as a material.

The brass of Sir John de Creke (*c.* 1325) in Westley Waterless Church, Cambridgeshire, is one of the best preserved of this class, and is in every respect an ideal example of the period (Fig. 57). The looseness of the cyclas is

well exemplified by the folds visible in the lower hem, and also by the gatherings round the waist under the narrow girdle, or cingulum, while the lacing down the right side is also apparent.

Fig. 57
SIR JOHN DE CREKE
(*c.* 1325)
Westley Waterless, Cambridgeshire

The Gambeson.—Under the cyclas was worn the gambeson (or wambeys), a thick, wool-stuffed garment, padded or quilted as a rule in vertical lines. The lower edge has an escalloped and fringed border, seen in the Creke brass immediately below the cyclas. The gambeson is a garment often mentioned in early Scandinavian times; thus an Icelandic chronicle, the *Speculum Regale*, describes it as a quilted coat without sleeves. It formed in many cases the sole defence of the warriors who fought at Hastings, and figures continually in the records of expenses for armour in the eleventh and twelfth centuries.

A monumental effigy is engraved by Stothard of Sir Robert Shurland (1306), who is shown habited in a gambeson only, supplied in this case with a pair of sleeves and fitting closely round the neck (Fig. 58). Later an ornamental lower edge of the gambeson appears to have become popular, as Sir John d'Aubernoun the younger (1327) and Sir John de Northwode (*c.* 1330) (see Fig. 63) both exemplify the feature.

The **hauberk** was worn under the gambeson, and in the Creke brass (see Fig. 57) it appears to be of banded mail,

terminating in an ornamental point in front. It has sleeves, somewhat loose upon the forearm, and is slit up underneath. This open sleeve exhibits a feature which has been alluded to in our description of banded mail, namely, the same appearance on both sides of this defence. There is but a small piece showing in the Creke brass, but it is quite sufficient for the purpose. The hauberk reaches to the neck, and the upper part is hidden by the camail.

Fig. 58
SIR ROBERT SHURLAND (1300).

The Haqueton.—Under the hauberk was worn the haqueton, a thick, stuffed, and padded garment similar to the gambeson, but not quite so ornamental. It covered the whole of the person from the neck to the knees, and the termination of the skirt may be seen in the Creke brass (see Fig. 57) forming a line along the upper part of the genouillières. The arcs of circles, with their chords, sufficiently indicate the thickness of the haqueton, which was undoubtedly defensive, while at the same time it relieved the body of the pressure of the hauberk—and also of the breastplate, if worn—and prevented chafing. It rested upon the under-shirt of wool worn next the skin. In an Act of Parliament of 1331 (4 Edward III) it was forbidden to wear in the city of London a concealed "acketon or plate or haberjoun, ne a espeye [sword] ne a long cotel [dagger] nor any other suspected arm."

It is questionable whether defences of plate were always worn with the above equipment; all that we are certain of is that at times they formed part of it. The breastplate

covered the upper part of the body to the waist and was strapped, or fixed in other ways, to the hauberk. Whether a companion backplate was in use at this period is unknown.

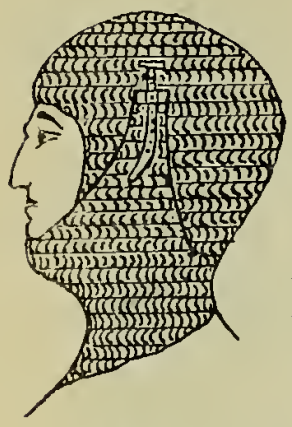


Fig. 59
COIF-DE-MAILLES
Found on site of Dominican Convent, Exeter

It is evident that a lance or an arrow in order to wound a knight of the Cyclas Period in the body would necessarily have to penetrate in succession the cyclas, gambeson, breastplate, hauberk, haqueton, and woollen shirt—an impossibility for the arrow, one might infer, and not an absolute certainty for the lance.

The highly ornamented basinet, or helmet in form of a basin, shown on the Creke brass (see Fig. 57) differs from those of the d'Aubernoun and Northwode brasses in having the addition of an ornamental band round the helmet and upon the forehead; this is used not only for embellishment, but also to hide the junction of the basinet with the camail. The latter—a term supposed to be derived from 'cap mail'—by protecting the neck in this fashion and being attached to the head covering enabled the coif-de-mailles, or hood of mail (Fig. 59), to be dispensed with and the intolerable weight and heat upon the head caused by the latter avoided. This camail was affixed to the basinet by laces which passed through staples in the metal termed vervelles; it depended loosely on the cyclas behind and before. An early basinet is shown on the figure of Sir Robert de Bois (1311) in Fersfield Church, Norfolk, where, as the lacing of the camail is not indicated,

Fig. 60. BASINET OF SIR ROBERT DE BOIS (1311)
Fersfield, Norfolk

it is possible that a coif-de-mailles was worn (Fig. 60). Fig. 61 shows a basinet with a camail a piece of which lifted and fastened to a staple on the forehead, forming a nasal, thus further protecting the face and leaving only the eyes exposed.

Fig. 61. BASINET WITH CAMAIL

Turning to the Creke brass again, we see demi-brassarts of plate upon the upper arms, with attached coudières having ornamental lions' heads hiding the attachment to the hauberk, and serving also as defences for the joints. Vambraces of plate (complete) protect the forearms. Demi-jambarts of plate defend the lower parts of the legs, with attached genouillières of plate or cuir-bouilli.

The incipient sollerets are shown as overlapping plates of metal defending the upper parts of the feet, the continuation of the mail chausses being still retained to protect the lower leg. The joints between the demi-jambarts and the sollerets are hidden by the straps of the spurs, which, for the first time, are seen to be of the rowel pattern and not of the cruel prick form, but the brass of Sir John d'Aubernoun (1327), although two years later in date, exhibits the older fashion.

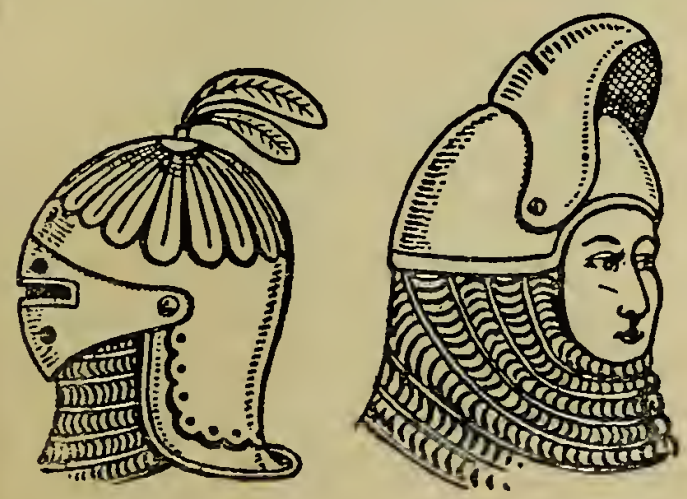


Fig. 62. BASINETS WITH VISOR ATTACHED

The shield is heater-shaped, and is the only part of the

equipment, strange to say, which exhibits armorial bearings. The sword, which is of the fashion prevailing during the previous period, is now suspended in a simpler manner than formerly.

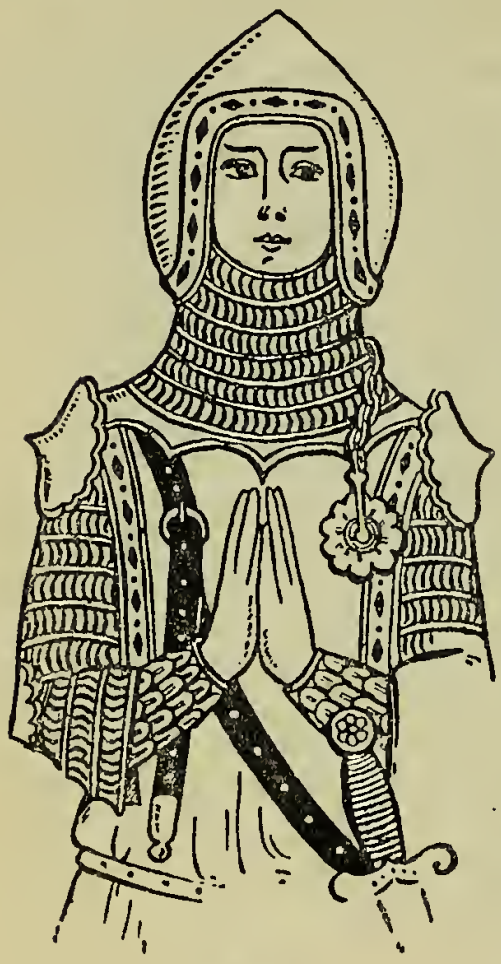


Fig. 63
SIR JOHN DE NORTHWODE
(*c.* 1330)
Isle of Sheppey

In illuminated manuscripts of this period basinets are generally shown with visors attached by rivets at the sides (Fig. 62), but no indication that visors were used appears upon the three brasses we have recommended for study. The effigy of Prince John of Eltham (1334) in Westminster Abbey shows no trace of any visor-fastening, neither does that of Aymer de Valence, Earl of Pembroke (1324). It is of interest to note on one of the 'weepers,' or small figures inserted in panels round this tomb representing the kinsmen of the deceased, an early example of the gorget of plate encircling the neck and lying upon the camail.

At Minster, in the Isle of Sheppey, a Flemish brass is preserved of the date 1330 which presents very curious and instructive features of the Cyclas Period (Fig. 63). It is that of Sir John de Northwode, who was knighted by Edward I at the siege of Caerlaverock, and exhibits a basinet with a peculiar swelling formation over the ears, strongly suggestive of the Continental form in fashion at that time—the so-called kettle hat (Fig. 64). Whether or not the camail of banded mail was laced to the basinet

is a matter for conjecture, as the ornamental band shown may not be intended to represent the vervelles and laces. The camail terminates in an invected border upon the chest, and two roundels protect the shoulders, while demi-brassarts are missing. An ornamental staple is represented upon the left side, which is attached to the plastron-de-fer or breastplate and serves as a means for fastening the chains attached to the great heaume. A small coudière is affixed to the elbow. A peculiarity is the suspension of the sword by a belt over the shoulder; the hilt exhibits a swollen grip as compared with earlier examples, while the pommel and short quillons are normal.

Fig. 64
KETTLE HAT

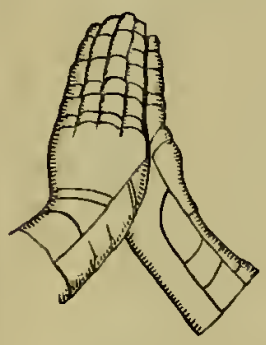


Fig. 65
GAUNTLETS OF JOHN OF ELTHAM (1334)

The gauntlets of Prince John of Eltham, Earl of Cornwall, who died in 1334, are represented in Fig. 65, and are possibly of cuir-bouilli, as no rivets are shown.

CHAPTER VI

THE STUDDED AND SPLINTED PERIOD (1335–60)

Battles, Sieges, etc., during the Period

1337. Beginning of the Hundred Years War.
1340. Sluys.
1346. Crécy and Neville's Cross.
1356. Poitiers.

Special Additions, Improvements, etc., of the Period

(1) Plate armour composed of separate pieces.
(2) Introduction of demi-cuissarts, demi-grevières, and genouillières of plate.
(3) Development of the basinet.
(4) Introduction of the crossbow.

Examples for Study

Arms and armour in the Tower of London and the Wallace Collection.
Effigy of Sir John Laverick, Ash, Kent.
Carved figures on monument of Lady Percy (1330), in Beverley Minster, Yorkshire.
Brasses: Sir Hugh Hastings (1347), Elsing, Norfolk; Sir John de Cobham (1354), Cobham, Kent.

THE Studded and Splinted Armour Period was essentially a time of transition, and no definite description of a prevailing style of personal defence can be advanced. It was an era of strenuous warfare for England, in which the battles of Crécy and Poitiers figure prominently, and, as one defence in armour failed and another succeeded it, so, by a continuous system of discarding and adopting, an armour was evolved which by 1360 became a military

Fig. 66. A Battle in the Fourteenth Century

equipment upon fixed and definite lines, and lasted as such for half a century. The armour prevailing in the Cyclas Period was gradually discarded by reason of the embarrassing complexity of the equipment, its great weight, and excessive heat.

The brasses between 1330 and 1350 which remain to us are comparatively few in number, and most of them are in a mutilated condition. This adds considerably to the difficulty respecting differentiation of the succession of innovation and adaptation. Broadly speaking, it may be stated that plate armour composed of splints, or separate pieces riveted together, was on its trial, the idea apparently prevailing that large sheets of steel could not be adapted to the movements of the human body.

We do not possess in England any example comparable to that of the splinted armour illustrated in the Frontispiece, which shows part of an equestrian figure at Prague. The splints are very narrow, and exhibit an exquisite finish of workmanship and design; the backplate and breastplate thus fabricated must have formed a model of pliability. Demi-cuissarts and demi-jambarts with genouillières of plate are shown, and it is interesting to note how these defences are fixed. The limbs are covered with a beautiful arrangement of overlapping ornamental splints. The prick spur is shown, and the illustration affords an example of the peculiar medieval fashion of placing the feet when on horseback—the toes are always turned toward the ground.

Illustrations accurately representing military equipment of the first part of the reign of Edward III are rare, and we therefore welcome a sketch reproduced in Fig. 66, which represents the well-ascertained features of the Studded and Splinted Period in armour. The incident depicted is that of the English bowmen at Crécy running from the

protection of their stakes in order to complete the discomfiture of the French cavalry after their ineffectual charge upon the English lines. The hail of clothyard shafts so often mentioned in connexion with this battle is well shown and by no means overdrawn.

In the lower left-hand corner the French knight, apparently pinned to the ground by his fallen steed, exhibits cuissarts studded and splinted with demi-grevières of plate and the small roughly-made genouillières of the period. From his snout-faced basinet depends a camail of banded mail; his gauntlets appropriately show that defence in the early and undeveloped stage.

In the right-hand corner is shown a prostrate form wearing a conical heaume, and we can see clearly the method of strapping it to the breastplate over the camail. This also prevented the camail from becoming disarranged. The heaume was also affixed firmly to the backplate (see Fig. 80). Of the bowmen in the upper portion of the illustration one has merely a capuchon for the protection of the head, while the other wears a chapelle-de-fer.

Fig. 67
ARM OF EFFIGY OF GUNTER VON SCHWARZBURG (1349)

Another illustration of Continental splinted armour is seen in Fig. 67, the arm of Gunter von Schwarzburg (1349), showing splints of metal covered with cloth and ornamented with a design covering the limbs. This effigy also represents the nasal, which pulls upward from the camail and engages with a staple on the basinet (see Fig. 61).

Backplates and breastplates during this period were at times covered with ornamented cloth or velvet, and brass nails and studs were by no means overlooked for decorative purposes.

A great disadvantage arising from splints was that a horseman's hammer, or any spiked weapon, would not glance off an uplifted arm, but would engage in the openings between the splints, and that for the same reason no part of the body armour except the cuirass was proof against an upward thrust from a shafted weapon. An example of the use of splints for body armour is shown upon a mutilated figure at Ash, Kent, where splints are apparently riveted to a foundation of leather. The effigy is supposed to be that of Sir John Laverick. Examples of splints used at a later period may be seen upon fifteenth-century suits in the Tower of London.

The remarkable brass to Sir Hugh Hastings (1347) at Elsing, Norfolk, although much mutilated, affords us a number of valuable illustrations of military equipment (Fig. 68).

Fig. 68
GENOUILLIÈRE ON BRASS OF SIR HUGH HASTINGS
Elsing, Norfolk

The Basinet.—Perhaps no part of the armour at this time shows more variety than the basinet. It is represented of all sizes and shapes and with bewildering variations. Fig. 69 represents the basinet of Thomas Beauchamp, as shown upon the Hastings brass, and here the visor is perhaps the chief point of interest. Below the grilled occularium and the breathing-holes a projection occurs, which must have covered the chin and part of the throat. An ornamental band round the neck served to hide the junction of the camail with the basinet. Various gorgets were also in vogue, many being hinged at the sides of the basinet and falling down over the chin and throat. These, in conjunction with a visor, would undoubtedly afford a good protection. All, however, are examples of a restless craving for some method which would afford efficient pro-

tection for the head, and the variety of attempts to attain the ideal is well shown in the carved figures from the monument of Lady Percy (1330), in Beverley Minster, Yorkshire. Here six or seven varieties of the visor are apparent, some being crudities comparable to that of Thomas Beauchamp.

Fig. 69. Basinet of Thomas Beauchamp, from the Hastings Brass (1347)

The Hastings brass affords us another type of head defence which is well worth reproduction. Fig. 70 represents the basinet and gorget of Almeric, Lord St Amand. It will at once be perceived that the curious contrivance for the head is merely the usual type of basinet furnished with a comb and a brim, which convert it into a semblance of the chapelle-de-fer with which we are familiar. Whether the brim was fixed, or could be pushed upward so as to engage with the comb, is not apparent; but if it pulled downward a very efficient protection for the face would be afforded in conjunction with the gorget, or, more properly, mentonnière. The latter is an early example of the fashion which prevailed in the fifteenth century, when an indispensable adjunct to the salade was afforded by the mentonnière. It appears to be pivoted to the basinet and to afford a support from which the

Fig. 70. Basinet and Gorget of Almeric, Lord St Amand, from the Hastings Brass (1347)

camail could depend, but if so fixed it would sadly interfere with the lateral movements of the head. The whole plate armour of the time strongly reminds one of modern boiler-plate work, where everything is subservient to strength, and gracefulness of design is neither sought for nor attained.

The Crossbow.—The Genoese crossbowmen played a prominent part in the battle of Crécy, and a brief description of their weapon will be of interest. A crossbow is not shown upon the Bayeux Tapestry, but one is mentioned in a manuscript about the year 1090 in connexion with the First Crusade. Pope Innocent II in 1139 issued a bull fulminating against the barbarity of Christians using such a terrible weapon against each other, calling it "deathly and hateful to God," but expressed himself as agreeable to it being used against infidels. Under Richard I it was in common use, and that monarch died by a crossbow bolt. The Close Rolls of the time of King John mention payments made to a maker of crossbows.

The first design of the crossbow was simple, as shown in Fig. 39, where a steel bow is fixed in a stock and discharged by a long trigger. To draw back the string to its proper position the bow was placed on the ground, the left foot was inserted in the stirrup at the fore-end of the stock, and both hands pulled back the string until it engaged. From 1215 to 1300 various ingenious contrivances were devised to charge the bow and lengthen its range, but the results obtained did little to lessen its unwieldiness and clumsiness. The strengthening of the steel bow, however, increased its range to about 300 yards, while the English longbow had an effective range of about 250 yards. The Genoese paid special attention to the development of the arbaliste and attained such a reputation in its use that 6000 Genoese mercenaries were engaged at

Crécy. A downpour of rain slackened their strings, however, thereby reducing the range. We are told that they leaped forward and uttered dreadful cries to frighten the English, who "stood still and stirred not for all that. Again they leaped and cried and went forward until they came within range, then they shot fiercely with their crossbows." The variety then in use was the **windlass crossbow, or moulinet and pulleys.** This had a system of pulleys affixed at the butt-end, over which strong cords were led. A small windlass set these cords in motion, and the pulleys themselves, having been hooked at one end of the tackle to the bowstring, pulled the latter back until it engaged in a nut. The tackle was then taken off and suspended from the archer's belt (Fig. 71).

Fig. 71. ARCHER WINDING UP HIS CROSSBOW

The Goat's-foot, or Hind's-foot, Crossbow (Fig. 72). —The method of discharge employed in this weapon is with a lever consisting of two pieces jointed together. The smaller of the two pieces divides into branches, each of which ends in a catch; one catch grasps the bowstring, and the other engages with lugs or projections on either side of the stock. To charge the bow the larger arm of the lever is drawn back, and the small fork, which grasps the bowstring, follows it until the notch is reached, where the string is caught and retained. This weapon was chiefly used by cavalry.

The Arbalète à Cranequin, or Wheel and Ratchet

(Fig. 73).—This consists of a toothed wheel enclosed in a case, which is circular and flat; the wheel is engaged with a toothed rod which has a hooked end. When the wheel is turned by means of a handle the rod advances until it grips the bowstring; when reversed, it draws back the string until it reaches the notch. A stout loop of cord fixes this apparatus firmly to the stock of the crossbow.

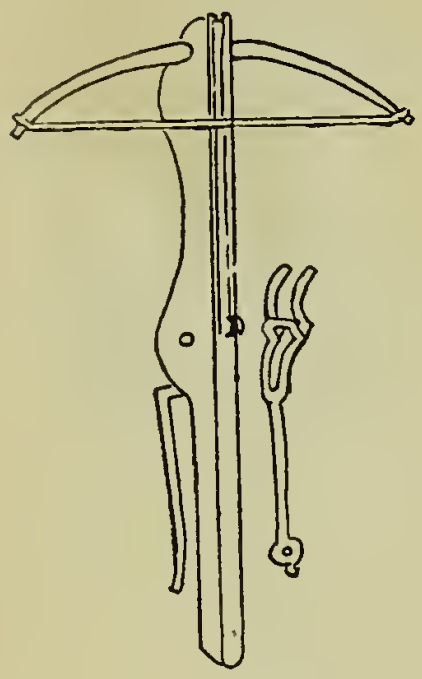


Fig. 72. CROSSBOW AND GOAT'S-FOOT LEVER

From "Armour and Weapons," by permission of the Clarendon Press, Oxford

The Crossbow à Jalet, or the Prodd.—This bow was used for shooting pebbles and leaden balls. It is bent by means of a lever fixed to the stock or simply by the hand alone. The cord of the bow is double in order to engage with more than one part of the missile. The stock between the trigger and the bow is generally curved and often made of iron. The weapon was more in use for the chase than in warfare.

The **arbalète à cric** was a powerful crossbow much in use for the defence of castles and beleaguered places. It was on the same principle as the 'windlass,' but by reason of the steel bow being of very great strength double cordage and sets of pulleys were in use, one being near the bottom of the stock and the other near the bowstring.

There is also a barrelled crossbow which is bent simply by a stick or with the hand. The groove through which the quarrel slips is covered by a half-tube, which thus leaves a passage for the string. This was a late variety of the weapon, and had not much strength. A crossbow used by the Italians had a single pulley attached to the butt of

the stock; a cord ran through the pulley and engaged at one end with the string and at the other was fastened to the soldier's belt. By raising the body the string was pulled so as to engage in the catch.

In spite of the lamentable failure of the Genoese at Crécy the crossbow became the favourite weapon in France, and

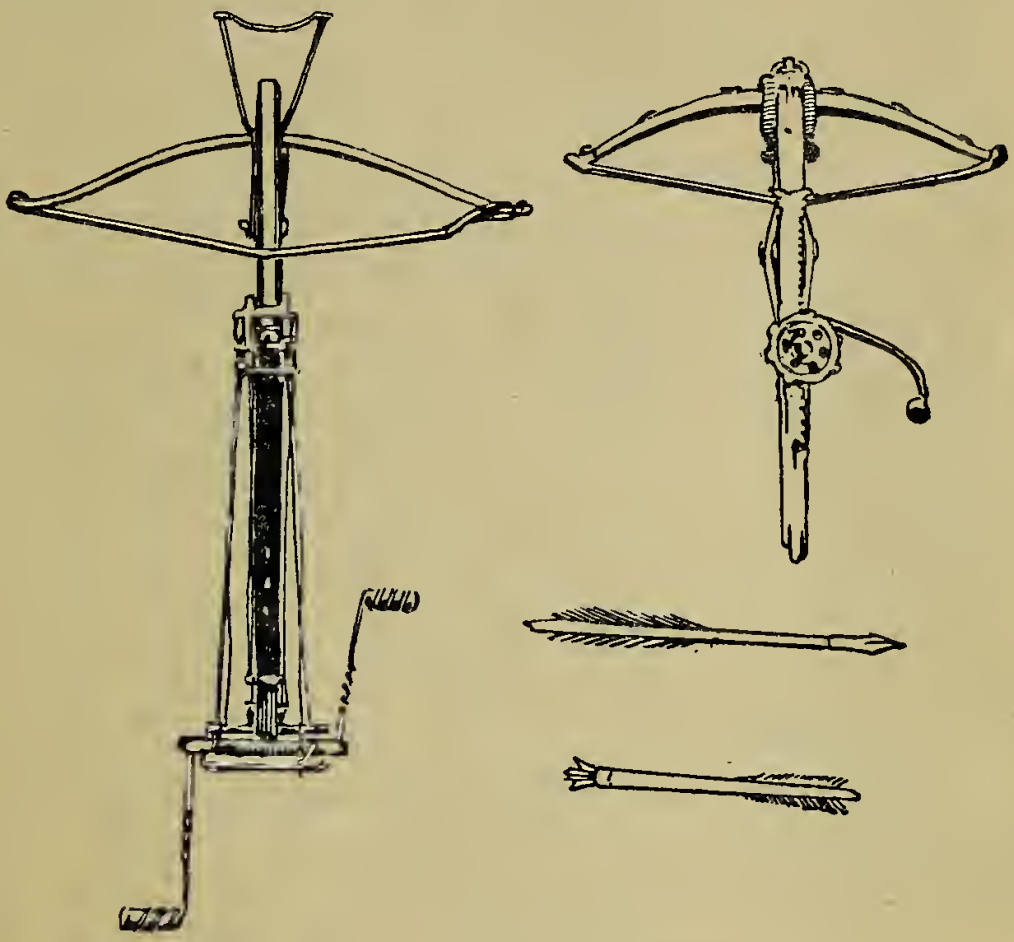


Fig. 73. Crossbows and Quarrels

entirely superseded the longbow; but perhaps the nation which lavished the greatest amount of ingenuity upon its improvement was the Germans, who still used it after it had been abandoned by others.

The vireton, a crossbow bolt or quarrel, so called by reason of its spinning in flight upon its longitudinal axis, had 'feathering' of cuir-bouilli in order to rotate it, as shown in Fig. 74. The fact that extra precision was

obtainable for an elongated projectile by this means seems to have been discovered at an early date.

Fig. 74
VIRETON, A CROSSBOW BOLT OR QUARREL

The great disadvantages of the crossbow as compared with the longbow were (1) that by being held in a horizontal position it occupied much more space in the ranks; (2) that it was very susceptible to climatic conditions, whereas the longbow always had its case for protection from rain and extremes of weather; (3) the slow rate of discharge; (4) its weight and general cumbrousness. A crossbow and quarrel are shown in Fig. 75.

The brass of Sir John de Cobham (1354), at Cobham, Kent (Fig. 76), well illustrates the trend of the defensive equipment toward a general system, and an incautious student might possibly include it in the next period; the 'pot-lid' genouillières, demi-brassarts, demi-vambraces, and demi-jambarts, studded cuissarts (or cuisses), and the peculiar method of fastening the sword-belt all point, however, to the Studded and Splinted Period. The Cobhams appear to have been eccentric with respect to their armour: Sir Thomas de Cobham (1367) and Sir John de Cobham, third baron, who died in 1407, are both shown upon brasses with 'pot-lid' genouillières

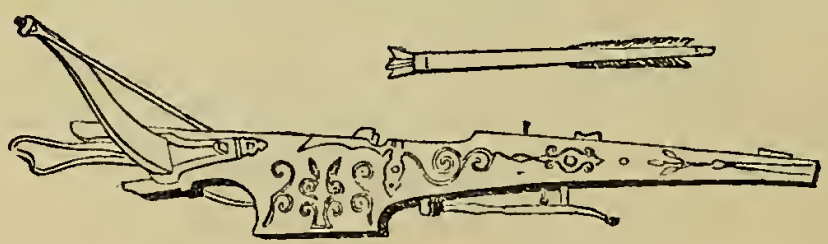


Fig. 75. CROSSBOW AND QUARREL

and studded pourpointerie cuissarts—in the latter case forty or more years after they had gone out of fashion.

The initial letter E beginning the grant of the Duchy of Aquitaine by Edward III to the Black Prince (Fig. 77), was embellished by the artist with a drawing of the ceremony. The King has a camail of banded mail and complete plate armour for the limbs, with the exception of the cuisses, which are of studded pourpoint. The Prince has one knee upon his helmet, which rests on the ground with the camail expanded by the weight; his equipment is the same as that of the King. This appears to show that even as late as 1360 the highest personages in the land had not dispensed with pourpointerie or discarded banded mail.

Fig. 76
SIR JOHN DE COBHAM
(1354)
Cobham, Kent
From E. R. Suffling's "English Church Brasses"

Probably no better illustration exists showing the pomp and panoply of war in the early fourteenth century than that of Sir Geoffrey Luterell taken from the Luterell Psalter (*c.* 1340) (Fig. 78). Sir Geoffrey was born in 1276 and died in 1345. His wife, Agnes de Sutton, holds his heaume and banner, while either Beatrice Scrope or her sister Agnes, daughters-in-law of Sir Geoffrey, is in charge of the shield. It will be noticed that ailettes are worn, so possibly the date is earlier than that suggested. The heaume is intended to be worn over the basinet and is seen to bear two vertical erections, between which is a comb with badge. Arms (*azure*, a bend between six martlets *argent*) appear upon the ailettes, surcoat, saddle, trappings, pennon, and shield as well as upon the comb on

the horse's head, while the ladies' dresses are likewise emblazoned; in fact, there is hardly a space to be seen upon which armorial bearings have not been placed. Gauntlets are shown apparently formed of articulated plates; there are no vambraces or brassarts, but coudières only, whereas

Fig. 77. EDWARD III AND THE BLACK PRINCE

From J. R. Planché's "History of British Costume," by permission of Messrs G. Bell and Sons, Ltd.

demi-grevières are added to the genouillières. The spear is about ten feet in length and furnished with a pennon. The picture affords a good example of the horse trappings of that age. The lady with the shield has upon her left arm a circlet which may possibly be the orle, worn round the basinet by knights to fill up the space between the interior of the heaume and the headpiece and to

deaden the shock should the heaume be struck in the encounter.

The general aspect of the cavalry during the Studded and Splinted Period is shown in Fig. 79; the knight in the foreground exhibits the method of fastening the heaume to the backplate by means of a strap over the jupon; studded cuissarts and demi-jambarts of plate are shown. Pictorial representations of the armour and arms of this period are

Fig. 78. GROUP FROM THE LUTERELL PSALTER
(*c.* 1340)

so rarely accurate that it is with a feeling of pleasure one perceives a drawing which accords with one's own ideas of the aspect of a battle of the time of Crécy and Poitiers. Artists as a general rule portray the combatants in those battles in the camail and jupon equipment of the age when comparative uniformity prevailed, and thus lose the picturesque features which accompanied the transition period preceding it, when every man followed the bent of his own inclination.

The wearing of the great heaume in warfare during the

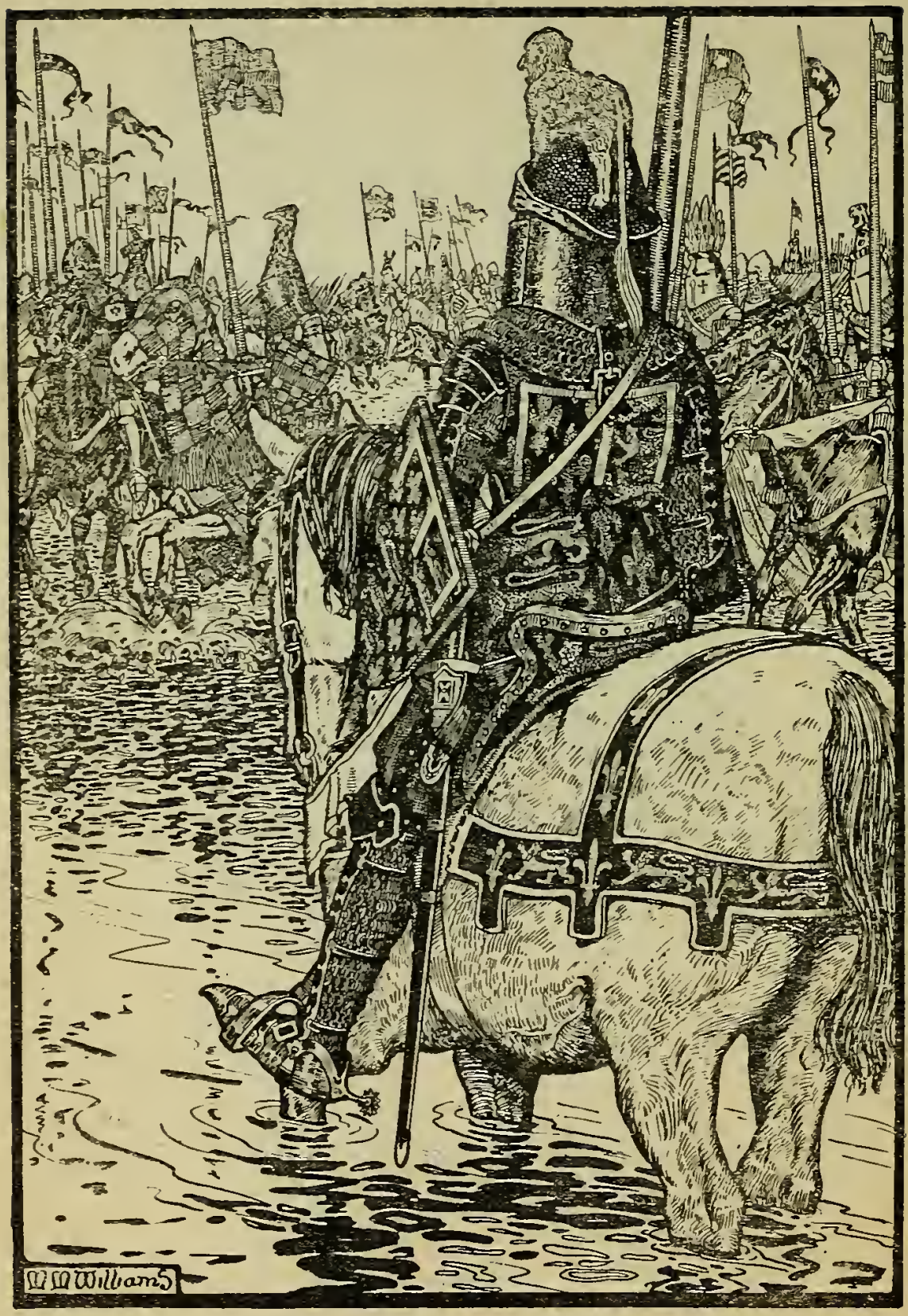


Fig. 79. An English Knight in the Time of Edward III

early part of the reign of Edward III was of common occurrence, although the basinet was rapidly coming into favour. The method of fixing the heaume to the back-plate and also of preventing the camail from 'riding up' is well exemplified in the picture (Fig. 79) and in Fig. 80. The heaume of the mounted knight is of the conical-topped variety, and has the heraldic chapeau and crest. That variety of crest called a 'panache' is shown on the head of a knight appearing above the right shoulder of the main figure. The square or oblong banner of the knight-banneret occurs in the picture, as does also the two-tailed pennon of the knight-bachelor (Fig. 79).

Fig. 80
METHOD OF FIXING HEAUME TO BACK-PLATE
From "Armour and Weapons," by permission of the Clarendon Press, Oxford

In the early medieval period sea-fights were practically the same as those on land, as the combatants merely used their vessels as vantage points from which to lead sallies or boarding-parties, and as higher points for placing their missile-throwers or marksmen. Fig. 81, a representation of the battle of Sluys (1340), further exemplifies a number of features illustrating the military equipment of the Studded and Splinted Period. In the lower left-hand corner is an archer with a jacque (a padded leather coat worn by the men-at-arms) of pourpointerie; the billman to the right holding a glaive is in a padded and quilted haqueton, and another billman to his left has a hauberk of banded mail. The figure astride the bulwarks with a quarrel in his chest exhibits cuissarts of studded pourpoint and laminated sollerets, while the erect figure behind him has cuissarts of the same material and sollerets of foliated cuir-bouilli. This figure is in a cyclas like the man with

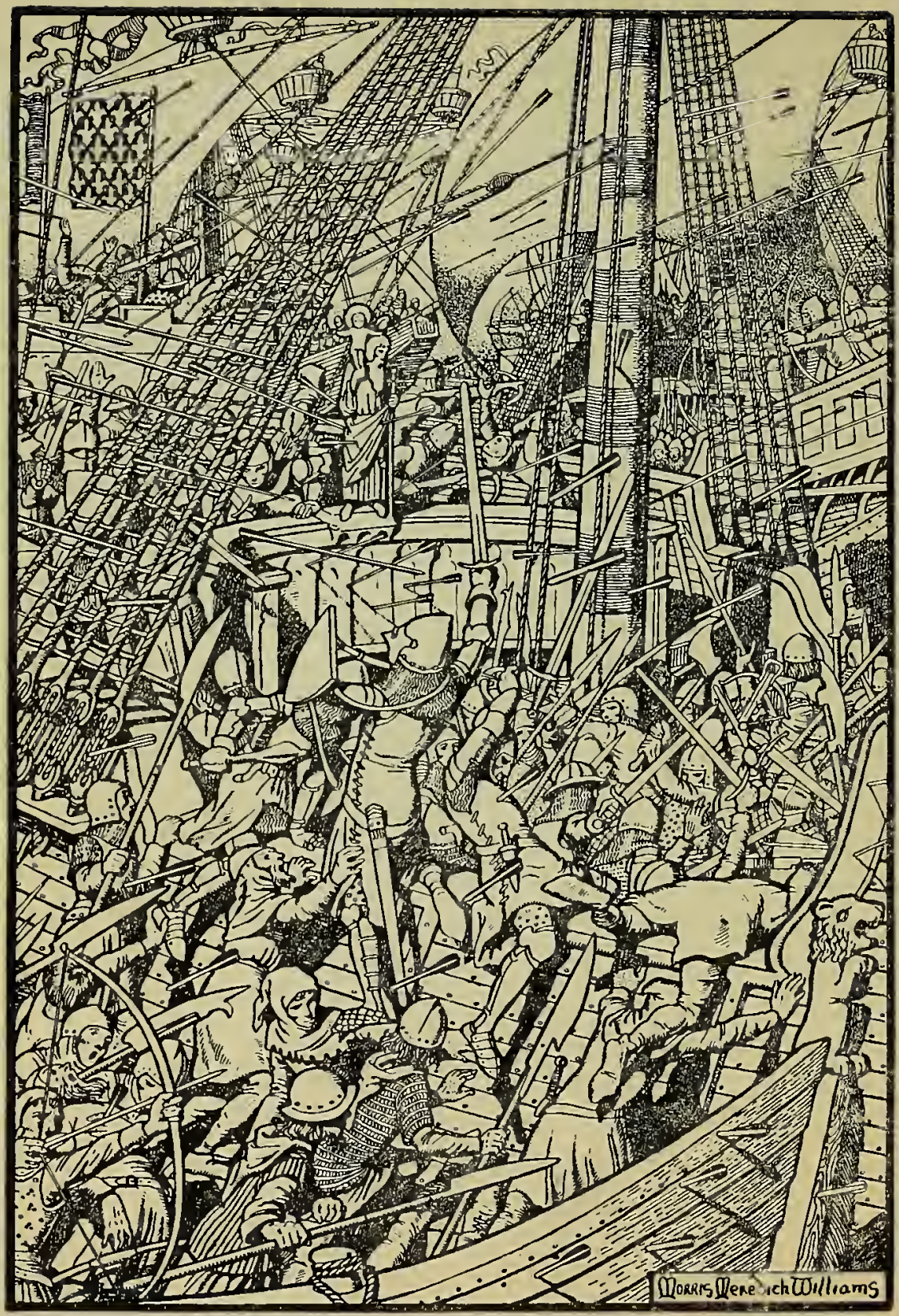


Fig. 81. The Battle of Sluys

a mace before him, but wears a pig-faced basinet, which did not become a feature of English armour until the reign of Richard II. It must not, however, be supposed that an anachronism has been committed by the artist, as it is well known that fashions prevailed upon the Continent thirty or forty years before their adoption in England. A swordsman to the left of the picture near the top has a gorget similar to that of Almeric shown upon the Hastings brass, while the chapelle-de-fer occurs more than once upon the heads of the combatants.

CHAPTER VII

THE CAMAIL AND JUPON PERIOD (1360–1410)

Battles, Sieges, etc., during the Period

1367. Najera.
1369. Renewal of the Hundred Years War.
1381. Peasants' Revolt.
1400. Revolt of Owen Glendower.
1402. Homildon Hill.
1403. Shrewsbury.
1408. Bramham Moor.

Special Additions, Improvements, etc., of the Period

(1) Method of enclosing the limbs in plate defences.
(2) Introduction of the jupon, or sleeveless tight-fitting tunic.
(3) Development of the pig-faced basinet.
(4) Introduction of laminated épaulières.
(5) Introduction of gadlings, or spikes of steel upon the knuckles of gauntlets.

Examples for Study

Arms and armour in the Tower of London and the Wallace Collection.

Brasses: Sir William de Aldeburgh (*c.* 1360), Aldborough, Yorkshire; Sir Thomas Cheyne (1368), Drayton Beauchamp, Bucks; Sir Nicholas Burnell (1382), Acton Burnell, Salop; Sir John Mauleverer (1400), Allerton Mauleverer, Yorkshire; Robert Albyn (1400) Hemel Hempstead, Herts.

With the advent of the Camail and Jupon Period the previous age of tentative expedients terminated, and a definite system of defensive armour was evolved, which, subject to very minor modifications and additions, lasted in England for about sixty years. The cumbrous visors

of the previous period disappeared, accompanied to a great extent by defences of splints, horn, bone, leather, cuir-bouilli, etc., and if by any chance the latter are represented upon brasses, effigies, and in illuminations, they may be regarded as exceptions proving the rule. The reason for their abolition was that in the fiery ordeal of actual experience they had failed to achieve their purpose, and had been superseded by other means which, up to that juncture, had proved more efficacious.

The latter half of the reign of Edward III was undoubtedly the most picturesque period of the Middle Ages with respect to civilian dress, and the Camail and Jupon military equipment was similarly distinguished. It followed in the main the curves of the human body, and this feature served to make it, as it did at a later period the Gothic armour, the most graceful of the many styles which had prevailed up to that time.

One advantage of no mean importance to the student of armour is the fact that it is possible to study the Camail and Jupon Period in every part of the country, as examples exist in effigy, in brass, or as ornamental statuettes practically everywhere. Even in small country churches knights so equipped are comparatively common, and the rich store of examples is probably due to the long period during which the style prevailed, coupled also with the wealth which the military class brought back from France and which enabled them to make provision for a fitting memorial to perpetuate their name after death.

The Basinet.—At the opening of the Camail and Jupon Period the basinet was tall and pointed, similar to that upon the Cobham brass (see Fig. 76), and also on that of Sir William de Aldeburgh, at Aldborough, Yorkshire (Fig. 82). It came well down in the neck and at the sides, thus affording good protection for the ears and the back

of the head. The opening for the face was either square-cut or oval, and the lacing of the camail to the basinet was at first fully exposed. This latter point is of importance, combined of course with other features, in judging the age of a military brass, for if the lacing is visible it may be placed approximately as before 1387, after which time an ornamental band generally concealed it. On the Cobham brass (Fig. 76) the camail is of the banded variety, but on the Aldeburgh example it is of interlaced chain, and worn over the jupon (Fig. 82). The apex of the basinet was not vertically over the centre of the base, but more to the rear; when the wearer was bending over the horse's neck in the act of couching the lance, the apex would be brought forward and take approximately the perpendicular position. This feature is not generally visible upon brasses because of their full-faced aspect, but is readily perceivable upon monumental effigies. A pig-faced basinet shown in the *Metrical History of King Richard II* (Fig. 83) exhibits this feature to a marked extent, as the back part of the basinet is in a straight line from the base to the apex, while a heaume or tilting helmet of the same period (*c.* 1400) is of similar type (Fig. 84).

Fig. 82
SIR WILLIAM DE ALDEBURGH
(*c.* 1360)
Aldborough, Yorks

Fig. 83
PIG-FACED BASINET

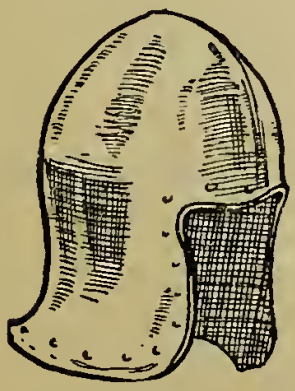
Fig. 84. HEAUME
(*c.* 1400)

The visors upon basinets were, when first introduced, readily removable, being simply hung from the centre or pivoted at the sides; subsequently they became fixed to the skull or main part of the headpiece and hinged upward or sideways, but at last, when the pig-faced basinet came into use, they moved upward and downward only. This pig-faced variety was introduced in the latter part of the fourteenth century (Fig. 85) and, although doubtless an effective defence, became the subject of universal gibe and the butt of very uncomplimentary criticism

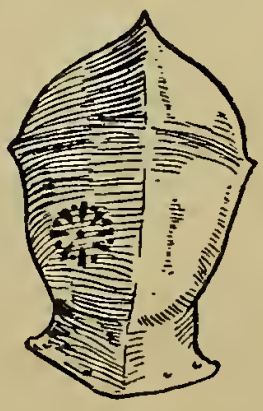
Fig. 85
PIG-FACED BASINET

1. WITH NASAL

NORMAN HELMS



3. SALADE
15TH CENTURY



4
15TH AND 16TH CENT.

Fig. 86. HELMETS OF THE MIDDLE AGES

from contemporary writers. It was caricatured in wood, stone, and on vellum. It is seen upon the brass of Sir John Mauleverer (1400) at Allerton Mauleverer, Yorkshire, while in the Tower and also in the Wallace Collection there are good examples of this helmet.

A basinet prevailed upon the Continent during the Camail-and Jupon Period which is often depicted in manuscripts upon the heads of English soldiery and was presumably a gleaning from the spoils of war. This was the barbute, probably of Italian invention but founded upon classic models; it was similar to the ordinary basinet, but the sides extended forward so as to show only a narrow opening in front the width of the eyes, while the neck was fully protected. An excellent example is No. 15 in the Wallace Collection (Fig. 87).

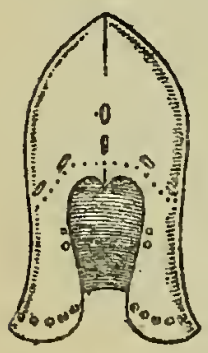


Fig. 87
BARBUTE

A basinet illustrated in the Bibliothèque Nationale, Paris (see Fig. 80), has a strap fastened low upon the back parts with the other end attached to a buckle and staple in the middle of the backplate, with the object of allowing the helmet to be regained if struck off; it is similar to the chain attached to the great heaume of the Trumpington brass (see Fig. 45).

The Jupon. — Upon the jupon on the Aldeburgh brass (see Fig. 82) the arms are shown (azure, a fesse argent, between three cross crosslets, or), while the Cobham brass (see Fig. 76) is plain. The material for the jupon cannot be stated with any degree of certainty, since it was generally formed of at least two or three thicknesses, the outermost being silk, velvet, or similar rich material, or of leather faced with the latter. The thickness of the padded jupon is well shown in a French illustration which represents the arming of a crowned figure. He is placing his head

through a hole in the centre of the jupon, which projects stiffly to the front and back and is made to lace down on both sides.

The jupon was sleeveless, fitted tightly to the figure without any crease, reached to about mid-thigh, and was laced up the back, or at one side, in which latter case it was generally at the left. The hem was either scalloped or dagged, and in most cases elaborately embroidered. The Aldeburgh brass is the last instance of a brass showing dagging cut into the form of conventional leaves.

Upon many figures of knights of the early part of this period the camail is seen to drop perpendicularly toward the shoulders; as time progressed it gradually expanded, until at last practically all the shoulders disappeared under it. Banded mail was in use at first, but was superseded eventually by chain-mail, sometimes of a very large mesh with thick links, but finally of small links closely riveted.

The Breastplate.—In contradistinction to the plastron-de-fer, which had been worn for probably a century or more, the breastplate now came into general use and, although not plainly exposed, can be perceived upon practically all effigies of the period and nearly all the brasses. It may be discerned upon effigies by the fullness and roundness imparted to the upper part of the figure, and to it undoubtedly can be ascribed the 'creaseless' quality of the jupon, which laced down tightly upon the smooth surface of the steel. Brasses indicate its presence by the wasp-like appearance of the waist, of which, no doubt, the warriors of the time were rather proud.

It is not known whether the breastplate was always accompanied by a corresponding backplate and thus formed a true cuirass. Certain it is that when, *c.* 1410, the jupon was discarded and the Surcoatless Period of armour commenced, the body covering emerged as a cuirass. In

inventions and references to armour before 1410 'plates' are often mentioned, which by some are considered to be breastplates and backplates, but the entries are in many cases ambiguous.

For example, in 1375 a royal proclamation was issued against the export of armour, and in the Letter Books of the Corporation of London under the year 1376 we read that notice was given to the Mayor to render up armour which had been wrongly seized, since it was destined for George, tenth Earl of Dunbar, and Warden of the Marches. It consisted of "five basinets, four pairs of plates, five breastplates, six pairs of braciers, six garnishments for lances, eight pairs of gloves of iron, two shields, and two bastard saddles." The last-named were probably pack-saddles. In this extract the "four pairs of plates" might be either breastplates or backplates, or examples of both, but if so it is curious that the five breastplates are specially mentioned. Consequently we can only definitely assert that breastplates were in use during the period under discussion.

The Hauberk.—This was worn under the breastplate, to which it was affixed; it shows to the extent of about two or three inches below the skirt of the jupon and has at times a wavy or other ornamental edge. It is visible also at the arm-openings, or gussets, and, on the rare occasions when the knight is represented with the basinet doffed, it is seen to be furnished with a collar of mail. During the latter part of this period it is almost certain that the hauberk, in the form of an entire jacket of mail, was abandoned in favour of a linen garment having pieces of mail called vuyders affixed to those parts where the gussets would occur, and a fringe of mail to be seen below the jupon. This system was probably adopted when the complete cuirass came into vogue.

Épaulières.—These are seen upon the Aldeburgh brass

(see Fig. 82) as overlapping lames of steel affixed to a larger plate covering the shoulders. This was the method employed up to the introduction of the pauldron in the next century; they are known as 'laminated épaulières.'

Upon the effigy of a knight of the de Sulney family (*c.* 1360) at Newton Solney, Derbyshire, these épaulières are also plainly shown (Fig. 88), but a reinforced solleret of unusual form is the chief point of interest in connexion with this effigy (Fig. 89).

Fig. 88. KNIGHT OF THE DE SULNEY FAMILY (*c.* 1360)
Newton Solney, Derbyshire

Brassarts were complete and constructed either in one bent plate or in two, riveted or hinged together.

Coudières.—These were generally of the close-fitting pattern reinforced above and below by similar splints to those used with the épaulières. The addition of a small roundel of plate was occasionally made in order to afford some measure of protection to the inner part of the bend of the arm.

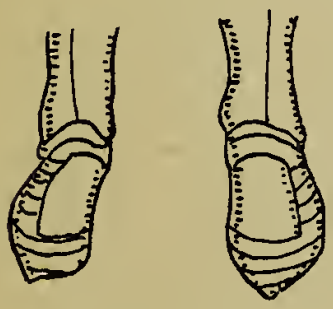


Fig. 89. REINFORCED SOLLERETS

Vambraces were cylindrical in form; they consisted of one plate, and reached to the wrist, where they were covered by the cuffs of the gauntlets.

Gauntlets. — During the Studded and Splinted Period gauntlets had gradually developed from being merely leather gloves to those constructed of steel plates, but it was left to the period we are now considering to bring them to a high degree of

perfection. Careful fitting and forging, combined with accurate finish, resulted in gauntlets being produced which excelled in many respects any armour that had preceded them. The fingers and thumbs were made distinct, with each digit articulated; one or more plates covered the back of the hand, and the cuff was formed from a single plate. The cuffs as a rule were not large and cannot be compared in this respect with those of the succeeding century.

One very noticeable feature was the introduction of gadlings, or spikes, protecting the knuckles and often projecting an appreciable distance in front of them. These were not only for defensive purposes, but served on occasion for offence; when deprived of every other arm the knight fell back on these as a last resource. Their use is reminiscent of the classic age when the cestus was used in boxing, and the subsequent development of that weapon by the addition of iron spikes could scarcely have rendered it more formidable than the gadlings of the Camail and Jupon Period. Actual examples of their use as a weapon are to be found in the pages of our history. Upon the gauntlets of the Black Prince, hanging above his tomb in Canterbury Cathedral, the spikes are fixed upon the first joint of the fingers, and the knuckles have pseudo-gadlings, consisting of small brass figures of lions or leopards in an erect position. As the art of the armourer progressed in this period he was able to add fanciful devices to the gauntlet, such as borders of ornament, imitation of the finger-nails, and other conceits. A pair of gauntlets is preserved in the Wallace Collection (Nos. 6 and 7), which

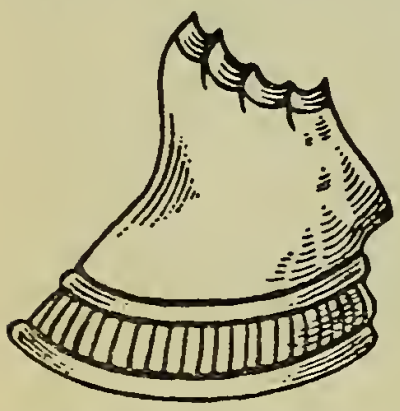


Fig. 90. GAUNTLET (LATE 14TH CENTURY) *Wallace Collection*

has decoration in the form of bands of latten (Fig. 90). Probably the earliest form of the fully developed gauntlet of the fourteenth century occurs upon the brass of Sir Thomas Cheyne (1368) at Drayton Beauchamp, Bucks.

Cuissarts.—These are the plates defending the thigh, and correspond in leg armour with the brassarts on the arms. At times they were made complete, but more often the rear portion was omitted in order to give a more efficient 'grip' of the saddle. In that case the defence was entrusted to the chain-mail chausses. The cuissarts were fastened by straps and buckles passing round the thigh. Many knightly effigies and brasses show cuissarts of pourpointerie after 1360, as in the Aldeburgh brass (see Fig. 82). When the cuissarts were complete the two plates hinged upon the outside, and were fastened to the thighs with straps.

Genouillières.—The 'pot-lid' form, as on the Aldeburgh brass—a relic of the Studded and Splinted Period—is to be found on a number of brasses and effigies in the early part of this period, but the prevailing type is a plain cap of small dimensions, reinforced as time progressed by subsidiary plates or lames of steel both above and below the knee (Fig. 91). The brass of Sir Thomas Cheyne shows jambarts of narrow vertical bands, the alternate ones studded, or, in other words, splinted grevières. The pot-lid genouillières and studded cuissarts of this brass show strong influence of the Studded and Splinted Period.

Fig. 91
GENOUILLIÈRE OF THE CAMAIL AND JUPON PERIOD

Grevières.—Occasionally these are seen as demi-grevières covering only the front part of the shins, as on the Aldeburgh brass, but became complete long before the end of the period. A small portion of the chain-mail of the

chausses showed for a time between the grevières and the sollerets, but was hidden eventually by the addition of a lame or lames of steel.

Sollerets.—The mailed footgear of the knight followed as a rule the civilian fashion in shoes, and became long or short, broad or pointed, according to the prevailing mode. Thus the solleret, though long and pointed at the beginning of the period, was of moderate dimensions in the latter part of the reign of Edward III; with the advent of the reign of Richard II it became of inordinate length, only to grow shorter again toward the termination of the century. The long-toed variety of solleret is known as 'à la poulaine,' and during the prevalence of Gothic armour it attained a length of some twenty-four to twenty-six inches.

The sollerets of the Black Prince were of extraordinary dimensions. The long tips could, however, be disconnected if required, hence the order to 'cut sollerets' issued to knights fighting on foot, when they severed the connecting straps. Metal connexions were at times in use. When the long toes were removed the remainders were termed 'demi-poulaines.'

The Shield.—The Aldeburgh brass (see Fig. 82) is the latest to show the shield as a portion of the military equipment, but later examples of the defence are obtainable from effigies and also from illuminations. From these it is discovered that no stereotyped form of shield prevailed, but that various kinds were in use, such as oblong, oval, heart-shaped, egg-shaped, and even triangular. Toward the close of the fourteenth century the bouche appeared, which consisted of a hole cut in the right-hand corner of the upper part of the shield in order to allow of the lance-shaft passing through. Large shields termed pavises were much in vogue during this period to protect

archers and arbalestiers in the field, especially during sieges. They were nearly the height of a man, and were kept upright by means of a supporting prop of wood behind (Fig. 92). They were generally made of planks strengthened with leather.

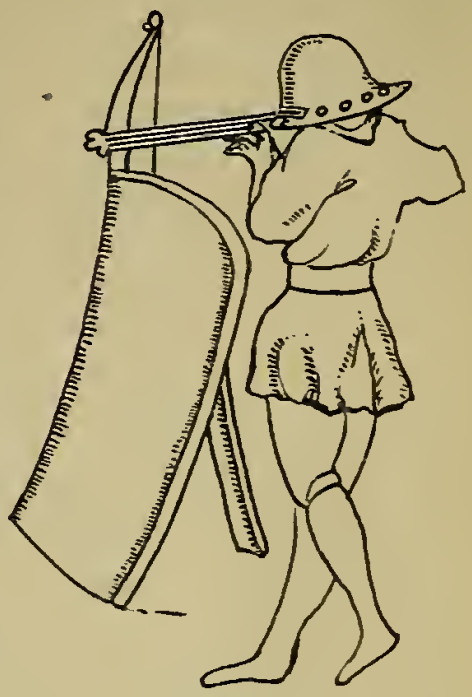


Fig. 92
SHIELD TERMED PAVISE

Spurs.—The rowelled type of spur prevailed in the Camail and Jupon Period, the usual number of points being eight. Sometimes the points are shown on brasses as guarded. At Poitiers the dismounted knights and men-at-arms removed their spurs as well as the long points of their poulaines, so as to be free to move easily, and used the spurs as caltrops. The latter weapon, as generally made, consisted of four short points of iron joined at their bases and radiating from one another, and when thrown upon the ground always presented a point uppermost: they were chiefly used for maiming horses in a charge.

The Sword.—This was suspended as a rule from the jewelled belt in front of the left hip, and hung perpendicularly, but examples may be found where it hangs from the hip and also behind. The sword of Sir Nicholas Burnell (1382), for example, is shown upon his brass at Acton Burnell, Salop, as passing behind the left leg, while Robert Albyn (1400), Hemel Hempstead, has a diagonal belt for the sword like the complete plate period, as well as the baldric. The blade was double-edged, about thirty inches in length, the quillons straight or slightly curved toward the blade; the pommels exhibit great variety, being

trilobed, conical, pear-shaped, etc., while the grip was long and with little swell. So long was the grip at times that it approached the dimensions of the hand-and-a-half, or bastard sword, of the next period.

The **misericorde**, or dagger of mercy, was a poniard with a fine point intended to penetrate the joints of the armour in order to give the *coup de grâce* to a fallen adversary. The blade was triangular in section, and the hilt often without a guard, but if so furnished the guard took a variety of forms such as a plain cross-guard, one of two knobs, or as a wheel guard round the base of the blade. The pommel generally follows the design used upon the sword. The knight of the Camail and Jupon Period not only used this weapon for military purposes, but wore it when in civilian attire; the fashion was copied by the ladies, who also appeared with small daggers or poniards appended to their girdles. The poniard proper is smaller and shorter in the blade than the dagger. The Aldeburgh brass is the first to depict this military weapon (Fig. 82).

The Hip-belt or Baldric.—This was essentially the age of the distinctive hip-belt, from which the sword was suspended upon the left, and the misericorde on the right, the latter generally by a short chain, which is perceivable upon effigies but not on brasses. The belt in the early part of the period was narrower and longer than when fully developed; it fastened in the front by a buckle, the superfluous length being pushed up under the belt and then passed downward through the loop so formed, similar to the Order of the Garter, thus producing a very effective finish (see Fig. 76). This pendent tab is one clue of value in determining the age of a brass, as it does not occur with any frequency after *c.* 1365. The brass of Sir Miles de Stapleton (1364), at Ingham, Norfolk, exhibited this feature (we say 'exhibited' advisedly, as the brass is

lost); that to a knight at Holbeach, Lincolnshire, of about the same age, exemplifies it, as also does one in St Michael's Church, St Albans, later in the period. The belt is generally represented terminating in an enriched morse or buckle in front, which is at times more elaborate than the remainder of the belt; the decoration consists of raised brooch-work of various forms, sometimes jewelled, covering the whole surface, and with designs exhibiting a high perfection of the goldsmith's art.

The Heaume.—Either the visored basinet was used in warfare and the heaume reserved for the tournament, or both were worn indiscriminately according to individual taste. The heaume did not vary in form to any great extent and preserved the conical crown in order to fit over the basinet. The whole weight of the heaume together with the basinet was borne by the head, the great heaume (which was fixed back and front to the body armour) not being in universal evidence at that time, although appearing in Fig. 79. A heaume formerly in the Parham Armoury, figured by Boutell, shows a strong plate of iron acting as a *pièce de renfort* covering the left side of the heaume and hinged to the plate covering the forehead (Fig. 93). The only outlet for vision afforded to the knight on his left side would therefore be the narrow occularium which shows at the junction of the two plates. The authenticity of this heaume, however, has been questioned.

Fig. 93
HEAUME
(14TH CENT.)
From the Parham Armoury
From C. Boutell's "Arms and Armour

The Lance.—During the early portion of the period the lance was short, having been cut down to five feet owing to the men-at-arms fighting on foot, an innovation

first employed at Poitiers. Two shapes of lance-heads are shown in Fig. 94. The long lance was only used at the tournament, and toward the end of the period the practice commenced of making the shaft hollow so that it might the more easily splinter during an encounter; in this form it was termed a 'bourdonasse.' The short lance was often used as a javelin, but this was considered so dangerous to the king's subjects that in 1383 it was enacted that "no man shall ride in the realm with lance-gaies," and if caught doing so he was to "forfeit the lance-gaies, armour, and other harness" he possessed. (The term 'lance-gay' is derived from the barbarous Latin *lancea* and the Arabic *zagaye*, a pike, or javelin; compare 'assegai.')

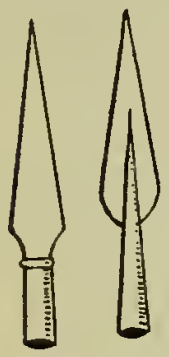


Fig. 94
LANCE-HEADS

Medieval regulations respecting the bearing of arms throw much light upon the weapons commonly in use. Thus in 1377 it was forbidden to carry any arms except a baselard by day, but a knight might have his sword borne after him, if the page doing so carried only a baselard and not a dagger. The baselard, or badelaire, was the sword usually worn by civilians, and may be seen upon many monumental effigies and brasses of that class dating from the fourteenth and fifteenth centuries (Fig. 95). It was worn in front of the person suspended from a belt; in form it was short in the blade with a broad base, while the grip was also short but swollen and moulded to the fingers.

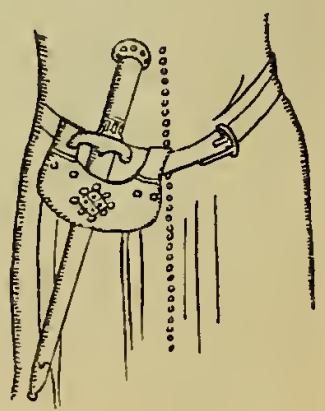


Fig. 95. BASELARD

In 1386 appeared an ordinance forbidding any stranger or foreigner to carry sword, baselard, dagger, 'hache,' or

other arm in the City of London. The 'hache' was a battle-axe (*cf.* 'hatchet'). In 1396 it was enacted that no knight, lord, or other, except king's officers, should ride by night or day armed, or bear sallet (*palet* in the French), or skull of iron (pot-de-fer, chapelle-de-fer) nor armour of any kind. The sallet (or palet), from which word the term 'salade' was derived (being the form of helmet in use during the middle part of the fifteenth century), was a variety of the basinet. A certain John Dymmock in 1393 bequeathed a "palet with hood," *i.e.*, a basinet with camail, together with a coat of mail, while the King asked the Mayor and Commonalty of London to accept a "palet of gold" as a security for the loan of £2000 which they had lent to him (Corp. London Letter Books).

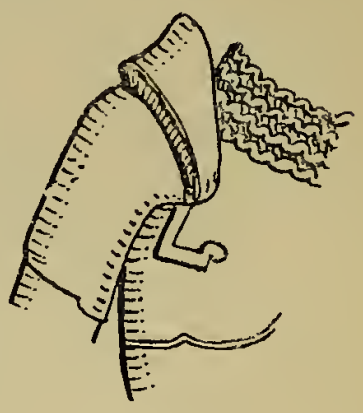


Fig. 96
THE LANCE-REST

Fig. 97
EFFIGY (1379)
Bamberg Cathedral

The manufacture of English armour was encouraged by the State during the reign of Edward III, and in 1355 armourers were forbidden to cross the sea to Gascony or elsewhere in the retinue of great men. Archery was fostered by every possible means, and in 1369 the export of bows and arrows was forbidden; the people practised upon Sundays as well as other days, and in 1414 a royal proclamation appeared forbidding handball, football, "coytes" (*i.e.*, quoits), and other fruitless games, and ordering "the practice of the bow on pain of six days' imprisonment as of old ordained."

The lance-rest was one of the innovations of this period, having been first introduced about 1360. It consisted of

an adjustable open iron hook screwed to the right side of the breastplate, in which the lance could rest and thus relieve the great weight formerly borne by the hand, while the force of impact was to a certain extent taken off the arm and transferred to the breastplate and thence to the body (Fig. 96). An effigy in Bamberg Cathedral is represented in Fig. 97, which exhibits a strange mixture of styles prevailing on the Continent in 1370. The legs have apparently no metallic protection except a peculiar genouillière, while the plastron-de-fer with chains attached to sword and misericorde are reminiscences of a much earlier period.

CHAPTER VIII

THE LANCASTRIAN OR SURCOATLESS PERIOD (1410–30)

Battles, Sieges, etc., during the Period

1415. Agincourt.
1415. Harfleur.
1421. Baugé.
1428. Orléans.
1429. Patay.

Special Additions, Improvements, etc., of the Period

(1) Disuse of the camail and general adoption of the gorget.
(2) General use of taces instead of the skirt of mail formerly worn under the jupon.
(3) Development of the coudière, and general use of palettes, roundels, or besagues.
(4) Great increase in the use of staff weapons, especially for the infantry.

Examples for Study

Brasses: A knight of the D'Eresby family (1410), Spilsby, Lincs; Sir Thomas de St Quintin (*c.* 1420), Harpham, Yorkshire; John Leventhorpe (1433), Sawbridgeworth, Herts.
Effigy of Sir Edmund de Thorpe (1418), Ashwell Thorpe, Norfolk.

About the year 1410 the jupon was almost entirely discarded, and the knight appeared in all the glory of complete plate or white armour. The period is therefore called the 'Surcoatless,' but another name is often used, viz., the 'Lancastrian.' Unfortunately this term is not quite correct since, although the style was introduced under a Lancastrian king, it only prevailed for twenty

years, and another name is allocated to the armour of the latter part of the reign of King Henry VI. The term 'Surcoatless' without doubt distinguishes the period from any preceding fashion in armour.

Fig. 98
KNIGHT OF THE D'ERESBY FAMILY (1410)
Spilsby, Lincs

Some time previous to the year 1410 a period of transition had begun, and brasses and effigies exhibit the gradual change which was taking place. This is well exemplified in a brass (Fig. 98) in Spilsby Church, Lincs, to a knight of the D'Eresby family (1410). The basinet, encircled by an ornamental orle, descends down the back and sides of the head in such a manner as to fit over a decorated plate gorget, or bavière, resting upon a camail, thus constituting a double defence for the neck. The same feature is shown upon the figure of Sir Edmund de Thorpe (1418) in Ashwell Thorpe Church, Norfolk, which also exhibits a very effective orle (Fig. 99). The laminated épaulières of Fig. 98 are curiously curved in an attempt to protect effectually the gussets or 'vif

Fig. 99
SIR EDMUND DE THORPE (1418)

d'harnois'—always a weak point in armour—and are enriched with the ornamental border which appears upon the whole suit. Round the waist is an elaborate baldric, which properly should be round the hips; it is of no use in the position shown and could only have been worn in such a mode from pure vanity. Below it are seen taces made up of five lames of steel, which cover the skirt of the hauberk—a double defence when compared with that of the pure Camail and Jupon Period. The genouillières are large and reinforced with pendent plates. A misericorde with a wheel-guard hangs below the taces, while the sword is suspended in the manner characteristic of the Surcoatless Period.

Fig. 100
JOHN LEVENTHORPE
(1433)
Sawbridgeworth, Herts

The brass of John Leventhorpe (1433) in Sawbridgeworth Church, Herts, is a good example of the Surcoatless Period and likewise affords a suggestion of impending changes or innovations (Fig. 100). The basinet is an example of the globular form then in vogue. It appears to have been forged in one piece, thus differing from the greater number of examples at that time, which generally indicate that the cheek-guards and neck-guards were added to the skull-piece covering the crown. The helmet rotates inside the gorget, which would also allow of a certain margin of play for up-and-down motion. The

laminated épaulières show plain roundels covering the gussets.

These roundels exhibit great variety of form; thus on the St Quintin brass (*c.* 1420) in Harpham Church, Yorkshire, one circular and one square shield-shape specimen are found; at Kelsey Church, Lincs, a knight (1410) has two bent half-moon roundels; the brass of Sir Bryan de Stapleton at Ingham, Norfolk (1438), shows two pavise-shaped shields (Fig. 101), and the brass of Walter Grene (1450) at Hayes, Middlesex, exhibits none at all, but shows the shoulders covered by pauldrons, a characteristic feature of the succeeding period. In Fig. 102 is seen the fan-shaped coudière from the brass of Peter Halle (*c.* 1420) in Herne Church, Kent, which is especially interesting, inasmuch as it shows the strap for fastening the coudière crossing the chain-mail.

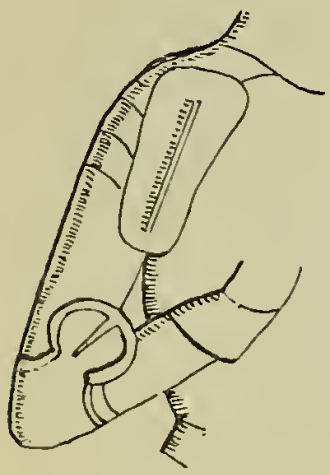


Fig. 101
ROUNDEL IN FORM OF PAVISE-SHAPED SHIELD

The Leventhorpe brass (see Fig. 100) has seven taces of plain laminated plates, the lowermost being divided into two parts covering the front of the thighs and thus forming a very early example in England of the development of the tuilles prevalent in the next period. The junction of the grevière with the solleret is protected by overlapping plates, and thus the entire figure presents an aspect of polished steel plate, no chain-mail being apparent.

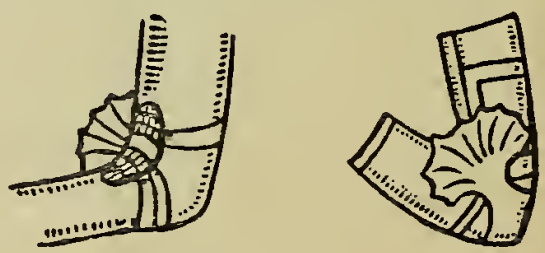


Fig. 102
COUDIÈRE OF PETER HALLE (*c.* 1420)
Herne, Kent

The sword-hilt should be noticed, as the grip is too

lengthy for the single hand; it is a hand-and-half, or bastard, sword, which was in great favour at the time. It was wielded chiefly by the right hand, but greater force could be given to a descending or a sweeping blow by grasping the pommel end of the grip with the left hand before the moment of delivery. To aid the left hand that portion of the grip was usually tapered, thus producing a protuberance where the two halves of the grip met. This variety of sword was originally of German make, but found its way into England early in the fifteenth century, when its usefulness for either cutting or stabbing was soon recognized and appreciated. There are numerous examples in the Wallace Collection.

The misericorde upon the Leventhorpe brass appears at a slope behind the right hip; the civilian mode of carrying it at the time was in a horizontal position, and it is often represented perforating the gypcière, or leather bag which was suspended from the belt; it should be noted that the breastplate at this time was in one piece and presented a uniformly smooth globular surface, thus differing materially from that used during the later years of the century.

The visor in use is not very frequently illustrated, but we gather that no stereotyped form was in vogue. Probably the type most prevalent was similar to that seen upon the Earl of Warwick in Fig. 103, which depicts a combat between that noble and Sir Pandulf Malacat (taken from the Cott. MS. Julius E. IV). It was fought at Verona with poleaxes, the favourite weapon at the time with antagonists on foot, and represents Sir Pandulf receiving a wound upon the shoulder, which was the signal for a cessation of the combat.

The drawings in this Cottonian MS. are by the Warwick antiquary, John Rouse, and illustrate the romantic adven-

tures of Richard de Beauchamp, Earl of Warwick, and are of great historical value. The manner in which the gorget was affixed to the breastplate, the horizontal slopes of the misericordes, the crests upon the helmets, and the mode of handling the poleaxe are all points of interest. Warwick is illustrated wearing a tabard; and he thus provides an

Fig. 103. Combat between the Earl of Warwick and Sir Pandulf Malacat

Cott. MS. Julius E. IV

early example of the fashion which prevailed later. Two different kinds of visors are depicted, but that worn by the Earl illustrates a point in the London records which might otherwise be difficult to understand. We refer to the 'bacynet with le umbrer' mentioned in the following list of goods bequeathed in 1412 by a mercer of London to his son upon the latter's coming of age: [1]

[1] *Calendar of Letter Books*, i, 112.

'A coat of mail' (*i.e.*, a hauberk).
'A paunce' (armour for the body, possibly the taces; the word is derived from Fr. *panse*, the abdomen).
'A pysan' (a kind of breastplate, possibly the plastron-de-fer; it was also styled 'pusane' and 'pizaine,' and was possibly derived from *pectus*.
'A bacynet with le umbrer' (the last word signifies the visor, or aventail, the removable part in front of the basinet).
'A pair of vaunt-bras' (vambraces).
'A pair of rerebras' (rerebraces or brassarts).
'A pair of legge harneys' (jambarts and cuissarts).
'A pair of gloves of plate' (gauntlets).
'A pair of platys covered with red velvet' (possibly breastplate and backplate).
'A prycking hatte' (a tilting helm).
'A hansylette of red damask' (possibly chausses to wear under the leg-harness.
'An armyng swerd' (an arming sword).

We are told that at a tournament held at Calais Thomas de Crewe smote off an opponent's visor three times, and broke his besagues. The besagues were probably the two circular plates protecting the armpits.[1]

The era of complete plate, inaugurated in the Surcoatless Period, brought to a standstill the supremacy of the weapons of offence which the latter had enjoyed for a century or more, and gave to the defence an undoubted advantage. Against the lance the breastplate afforded an almost sure protection, not so much on account of the thickness of steel composing it, but chiefly by reason of the glancing surface, whereby, unless a lance struck fairly

[1] See article "The Besague or Moton," by Viscount Dillon, in the *Archæological Journal*, No. XLIV.

and squarely at right angles to the surface, a deflection was almost inevitable, and the lance passed by innocuously. It was only by catching in a junction between two plates of metal that a lance had an opportunity of penetrating, and during the fifteenth century the tendency was to lessen the number of plates as much as possible and so minimize this danger. An arrow, or a bolt from a crossbow, could not pierce a good steel plate except at short range, and consequently we read of the archers seeking for openings in the otherwise impenetrable knightly harness. The basinet could not be crushed by a sword-cut because of the glancing surface which it presented, and for the same reason that weapon apparently smote harmlessly against most of the other equipment; consequently the battle-axe or pole-axe, the mace, and the staff weapons of the infantry were the chief arms to be feared by the knight in his panoply of plate. One point, however, should be remembered—the vulnerability of the taces. In order to enable the body to be bent it was necessary to fashion them so that they overlapped upward, and this proved a source of weakness on occasions when the wearer was attacked by an adversary armed with a military pick or a horseman's hammer. Those weapons by striking downward would catch in the overlapping plates instead of glancing off.

There is a medieval romance about an unsuspecting man-at-arms who, lingering behind his two companions, was hurled from his saddle by one blow from a herculean blacksmith, who promptly tried to 'crack' the prostrate form with his sledge-hammer. When the helpless man was eventually rescued by his companions, they found him little the worse for the experience. If this story is true, the terrific din going on 'outside' must have been, to say the least, somewhat disconcerting to the inmate of the 'shell.'

The difficulty of dispatching an unhorsed knight probably led to the use of Welsh footmen, who were accustomed to run in among the struggling mass of prostrate horses and helpless riders and dispatch the latter with their daggers, the favourite spots for delivering the *coup de grâce* being through the eye or under the arm. These footmen were also expert in running under the horses in a cavalry charge, and by an upward thrust of their daggers upon the unprotected portion of the steed would bring both him and his rider to the ground.

In this period the two-handed sword was introduced into England, and was generally carried attached to the saddle or other part of the horse harness. The object of carrying it was to ensure that the rider should have a weapon at hand in the event of his losing lance and sword by becoming unhorsed. It was only for use on foot. This weapon was the invention of the Swiss, who organized bodies of infantry to wield it; it was found, however, that so much space was required by each man to use the weapon effectually that the fall of only a few swordsmen would provide a gap sufficient for the enemy cavalry to break through, and possibly for this reason the weapon fell into disfavour for open warfare. For defending narrow openings, like the mural passages and stairways in castles, for instance, its use was found most efficacious. The total length of a two-handed sword, including the hilt, was about five feet, or a little more; it was wielded by both hands, was not suitable for stabbing, and had no scabbard. A crescent-moon-shaped guard occurs a little way down the blade, which from about this point to the quillons is squared and generally covered with leather, being called the 'ricasso.' A variety of this sword has a wavy blade and is called the 'flamberge' (see Fig. 156).

The archer during this period added still more to the

high reputation he already bore, and the supremacy of his weapon was convincingly proved again at Agincourt. The historian Monstrelet states that the English archers at the battle were mostly without defensive armour; they were habited in leather jackets, with loose hose, without hats or caps, and were in many cases barefooted; their hatchets or swords hung at their girdles. Another writer states that they were not all bareheaded, but that many wore caps of cuir-bouilli and others of wickerwork crossed over with bars of iron. This evidence, though rather conflicting, appears to suggest, as before asserted, that no particular equipment was dealt out to the archer, but that he was expected to have some weapon or weapons in addition to his bow. From another source we learn that a casque and gauntlets of mail were deemed essentials. The English archers, we know, were in the habit of dispensing with all unnecessary personal impedimenta which might hinder the free use of their limbs in warfare, and some in their zeal stripped themselves nearly naked, while all had bare arms and breasts. Monstrelet, as quoted above, may possibly have thought this lack of dress to be a regulation equipment.

The harrow formation of archers, whereby they stood like the spikes in a harrow, gave them a fair amount of available space; troops of archers were formed up in wedge-like companies with the apex of the triangle to the front; at Agincourt these troops were upon either flank and along the front of the line. Each archer had a stake between five and seven feet in length, which he drove into the ground in front of him, leaning outward toward the enemy (the angle was 45° at Verneuil), and one yard from his comrade on either side; as the upper part of this stake was furnished with an iron point it formed a formidable abattis against cavalry. A bundle or sheaf of twelve arrows

was carried thrust through the archer's belt; and some for quick use he placed under his left foot upon the ground, with the piles pointing away from him.

The battle of Agincourt commenced by volleys of flight-arrows from the English archers, which did fearful execution by reason of the French being thirty deep and packed so closely together that they scarcely had room to move. When the French men-at-arms charged we are told that the English archers retreated quickly to their line of stakes, "a wonderful discipline in which the King had exercised himself for some days." The archers now paid greater attention to the horses than the riders, and the maddened animals, bristling with shafts, added to the existing confusion. When the cavalry retreated in disorder we learn that the archers slung their bows and rushed among them with halberd and hatchet, sword and mallet.

There can be little doubt that the supremacy of the bow over all other weapons at that time was owing to the fact that it was put into the hands of every English boy at seven years of age, and that it never ceased to furnish him with recreation and sport until the advance of age deprived him of the power to wield it. Thus its continual practice produced a second nature, and the transfixing of an object within range became a matter of certainty. Napoleon III says of the archer: "A first-rate English archer who in a single minute was unable to draw and discharge his bow twelve times with a range of 250 yards, and who in these twelve shots once missed his man, was very slightly esteemed." Viollet-le-Duc states that arrows were always carried in a sheaf fastened to the waist, and sometimes in a leather bag, but never in a quiver. The number of arrows carried was not less than two dozen, of which eight were flight-arrows or lighter arrows with a small head which could be shot to a considerable distance and were capable

of killing at 240 yards; the remainder were sheaf-arrows, with greater power of penetrability at a shorter range. Both of them were one yard in length.

The old saying that "an English archer carried twelve Scottish lives under his belt" was apparently no exaggeration, but it must be remembered that until he had learned to bend the mighty Welsh bow he did not enter into his pride of place. At Homildon Hill (1402) the power of archery was fully manifested. The English archers advanced slowly to the front, where the Scots, drawn up in a deep square and wedged closely together, were struck down without a chance of returning a blow. The effect was dreadful, for the light and incomplete armour of the Scots was easily pierced by the English shafts. The horses became unmanageable under the stinging hail of the maddening shafts. Walsingham states that Douglas' coat of mail had occupied three years in construction by a skilful armourer, yet he was wounded in five places by arrows and captured. The battle was won by the bow alone; there was no hand-to-hand fighting, while the cavalry was used in the pursuit only.

When it was found by bitter experience—in war especially the most costly of all methods of learning—that against infantry armed with the longbow the former awe-inspiring charge of heavily armed and mailed cavalry melted away before coming to lance distance, other means were devised to counteract the deadly arrow. One of these, introduced early in the fifteenth century, was the pavise, a large shield, as a rule square in form and convex, sufficiently large to protect the squire who carried it and his dismounted master. Under cover of this defence the man-at-arms could advance unscathed toward the archer, and spring upon him when an opportunity occurred.

Retaliation was, of course, a natural consequence, and we find that the archer in turn had a pavise carried before him by a soldier called the 'pavisor'; in a siege this defence became a necessity for the bowman.

The mantlet was a more ample kind of shield than the pavise, and was generally held in position by a prop (Fig. 104); it may be looked upon as a little fort behind whose protection two or three men could carry out their operations in comparative safety. Both the mantlet and the pavise were at times of rude workmanship, being fashioned of vertical planks fixed upon a framework. To the arbalestier the pavise was a *sine qua non*: he carried it upon his back and after discharging his bolt turned round and, under the protection thus afforded, wound up his crossbow in safety.

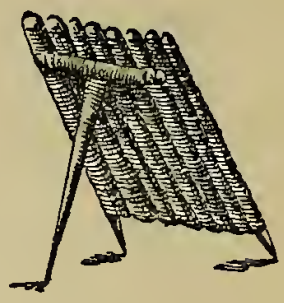


Fig. 104
MANTLET

The State issued regulations respecting the quality of arrow- and bolt-heads, and in 1405 it was ordained that "arrow-heads and quarrels be well boiled or brazed and hardened at the points with steel, and that every arrow-head shall have the maker's mark upon it."

The great development of staff weapons during the period was necessitated by the impervious nature of plate armour compared with pre-existing styles. Old weapons were as a rule remodelled, the new features introduced being the addition or development of a penetrating spike for piercing plate at the joints, and the addition of a hook for pulling horsemen off their horses. Cutting edges were neglected as being of minor importance.

One class of weapon so developed was the **goedendag.** This was a variety of the mace and came into use about the time of the battle of Courtrai (1302). It derived its name, according to Guiart, from the soldiers' pleasantry

when using it, as they generally accompanied the blow or thrust with the remark "*Godendac*," equivalent to "*Bon jour*," or "Good day." It always terminated in

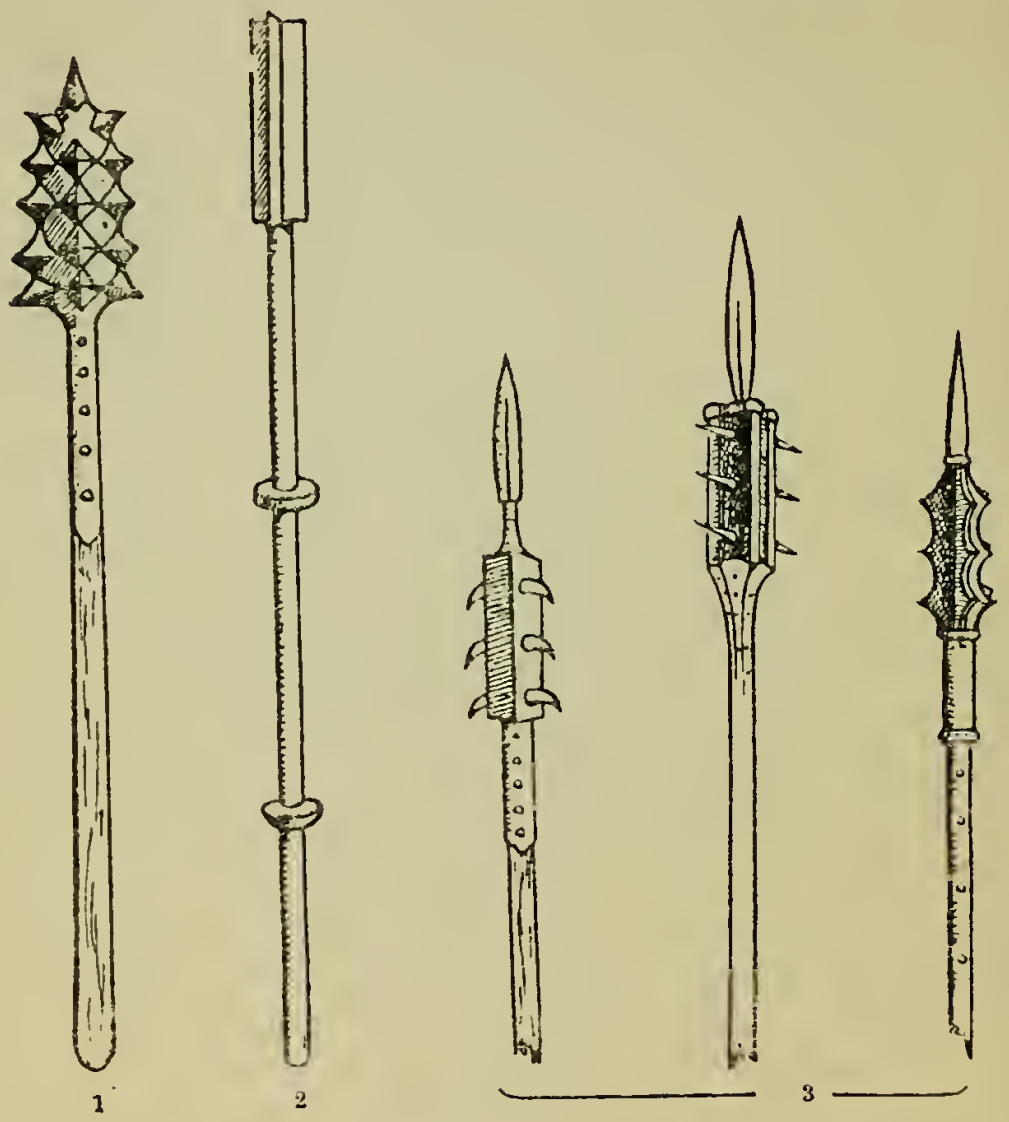


Fig. 105

1. Morning Star. 2. Mace. 3. Goedendags

a spike, and the additions of the fifteenth century consisted of spikes fixed into the mace-head (Fig. 105).

The Morning Star.—Of near kindred to the goedendag was the 'morning star,' since in its simplest form it is a spiked mace. It was used by both cavalry and infantry, the latter having a more lengthy shaft attached. Its

popularity may be partly ascribed to the ease with which it was manufactured, the village blacksmith being capable of producing it.

The Holy-water Sprinkler and Military Flail.—These weapons are of the same class as the morning star. The sprinkler doubtless owes its name to an obvious mediæval joke of questionable taste. It consisted essentially of a chain, linked to a plain or spiked ball, attached to the head of a staff, and the military flail had a similar arrangement (Fig. 106).

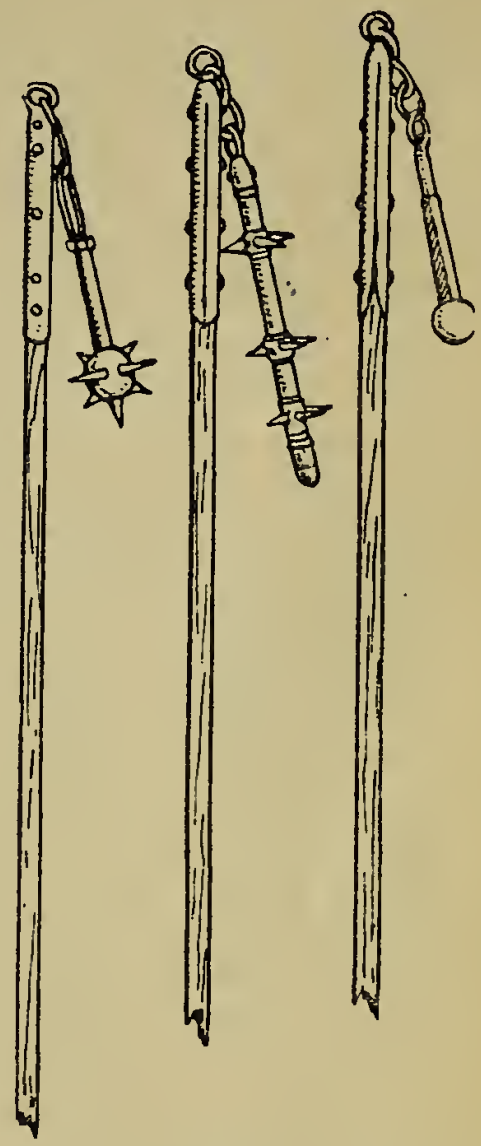


Fig. 106
HOLY-WATER SPRINKLERS (OUTSIDE) AND MILITARY FLAIL (CENTRE)

The Mace.—Since the battle of Hastings, when, as we have seen, it was in general use, the mace had undergone a number of changes necessitated by the evolution of the defence it had had to overcome, its form being that of a sphere, oval, disk, cog-wheel, etc. With the plate-armour period new kinds of maces came into use, such as that shown in Fig. 105, No. 2, where a section of the head would show four thick iron plates radiating at right angles from the central staff. The latter is elongated so as to adapt the weapon for use with both hands, in a similar manner to the poleaxe, and has two guards. The mace was the weapon wielded by ecclesiastics when militant here on earth and desirous of avoiding the fate threatened to those "who smite with the sword." They argued that the

Scriptures forbade the spilling of blood, but that there was no injunction against the dashing out of brains.

The strange metamorphosis undergone by the pageant maces of the present day may be mentioned. Originally they were of iron and were true business weapons. But the law officers of the medieval period had the royal arms stamped upon the end of the shaft at the grip, which thus became the important official part of the weapon. As a consequence, guards over the seal were made there, and these eventually became so large and so important, while at the same time the other end shrank into insignificance, that after a time the mace was turned round, and thus the royal arms, now carried upon the shoulder in all Corporation and other maces, have completely reversed their former position.

The Military Fork (Fig. 107, No. 1). — This weapon is undoubtedly derived from its agricultural prototype; it was known in the eleventh century, but was greatly developed in the Cyclas Period and during the one under discussion. As an armour-piercing weapon it could hardly be excelled, its efficacy against the weakness of the joints being the chief merit; to add to its usefulness one or more hooks were introduced for dismounting cavalry, while some examples are in existence provided with exceptionally long poles for pulling soldiers off the battlements of beleaguered fortresses. There are military forks to be seen with unequal prongs, and some with three prongs.

The Halberd.—This weapon, which combines the functions of the axe, the pick, and the spear, was an innovation during the Cyclas Period, but came into general use in the fourteenth century. It was used by the infantry and was generally about five or six feet in length; from the head the shaft was generally protected by lengthy bands

of iron to ward off sword-cuts. The example shown in Fig. 107, No. 2, has the axe-blade of moderate dimensions, while the spike (to the left of the figure) has greatly developed from its original simple form and is prolonged to help in forming the base of the surmounting lance-head.

The crescent-shaped blade came into use in the reign

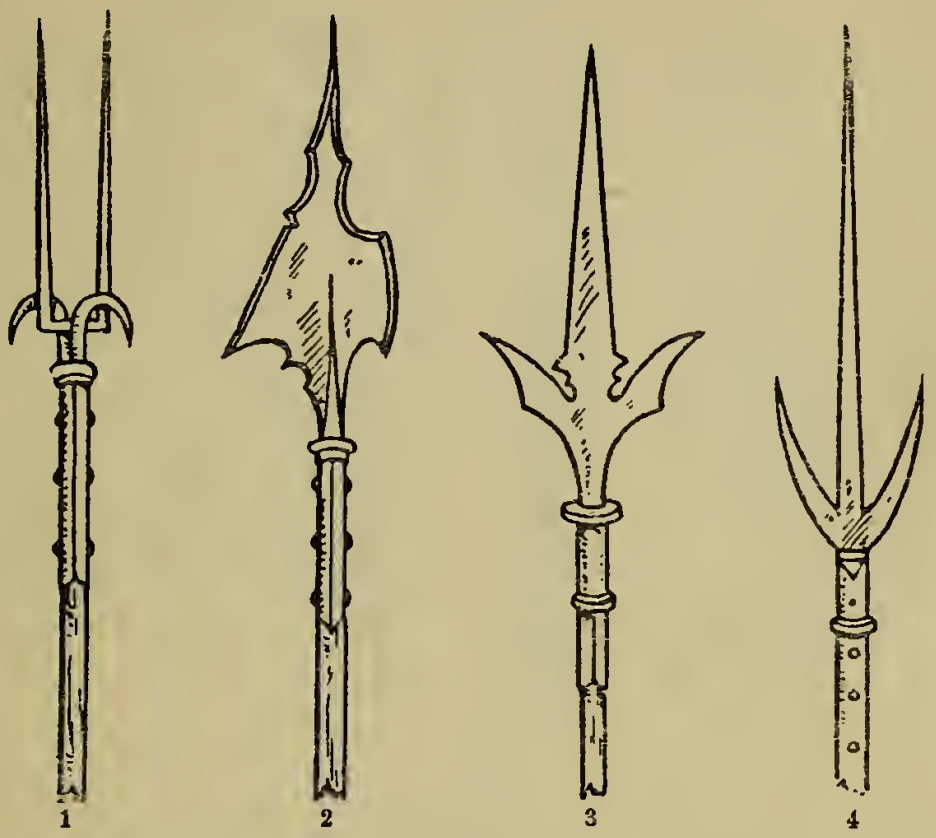


Fig. 107

1. Military Fork. 2. Halberd. 3. Partisan. 4. Spetum

of Henry VIII, the weapons preceding it having been furnished generally with a straight cutting edge. The advent of the pike caused a decline in the use of the halberd, but it was not entirely discarded, being retained for parade purposes, when it assumed most elegant and artistic forms.

The **partisan** consists essentially of a long two-edged straight blade with various lateral projections at the base; it assumes an almost infinite variety of forms, but never

varies in one respect—the two sides are counterparts of each other. It was in great use in France during the fifteenth century, and to a lesser extent all over the Continent. Partisans are shown in Figs. 107, 108, 109.

The **ranseur** was similar to the partisan, but had a broader blade.

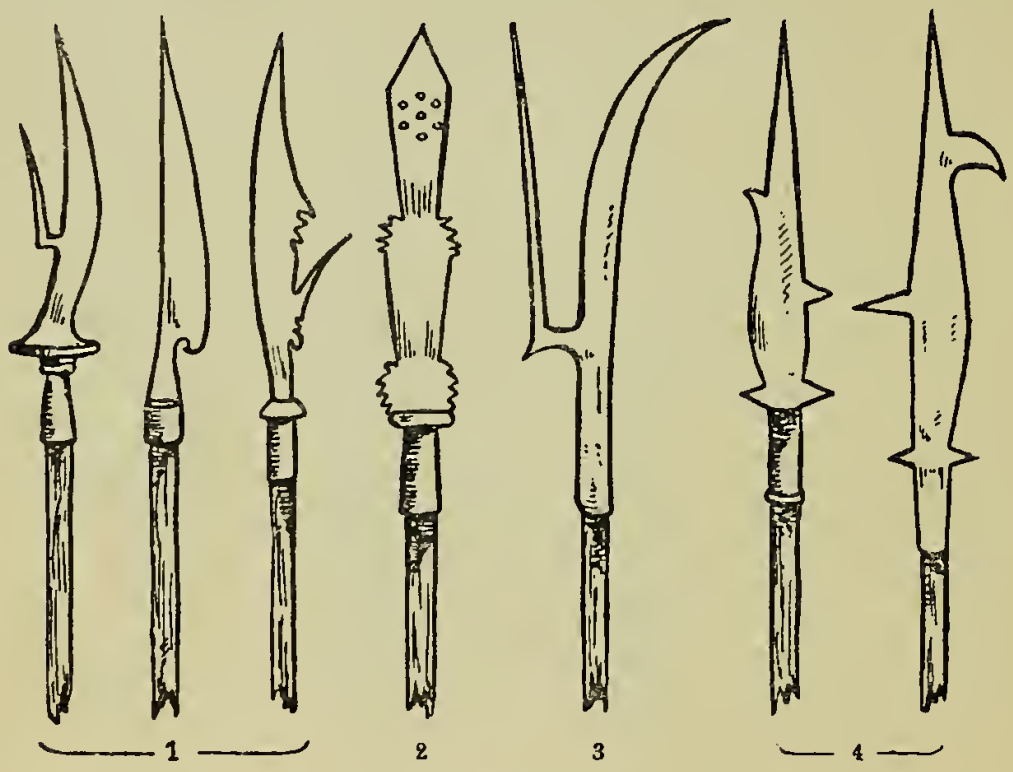


Fig. 108
1. GLAIVES. 2. OX-TONGUE PARTISAN. 3. GUISARME. 4. BILLS

The **pike** was practically in use from the time of Edward III to the beginning of the eighteenth century, when the bayonet superseded it. It consisted of a single spike, flat like a lance-head, attached at its base to two long strips of iron which ran down on either side of the shaft for a good distance and almost encircled it. This was one of its prominent features, as the encasement of the shaft rendered it almost immune from sword-cuts and the blows of other weapons. The length of the shaft has varied greatly from the usual length of about ten feet: at one

period it was thirteen feet long, in 1662 sixteen feet, and it has reached twenty-two feet. An iron shoe upon the butt-end strengthened and protected it when it was grounded to receive cavalry.

In Fig. 110 a formidable pike is shown (fourth weapon from left) in which the spike and protecting disk are

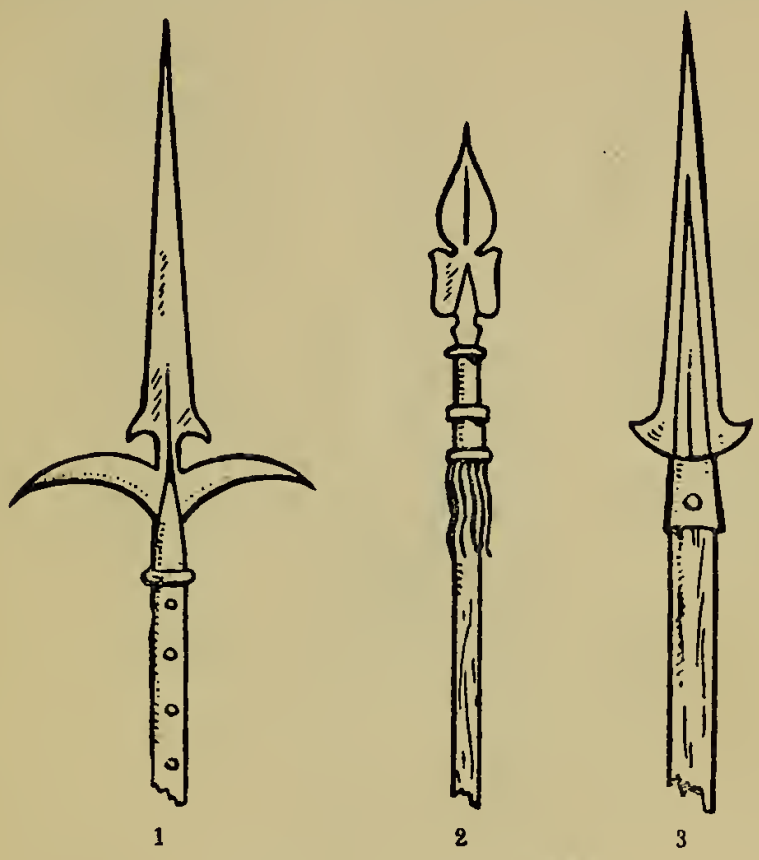


Fig. 109. PARTISANS

of steel; the point is apparently circular in section for its whole length, and the soldier is represented in the drawing (Roy. MS. 20 C. VII) with his left hand close to the guard, which is three feet or more from the point. The other pikes shown in Fig. 110 (third and fifth from left) are simple forms of pikes, with a cross-guard in one case and an armour-piercing spike in the other.

The Poleaxe.—This weapon and the manner of holding

it are well illustrated in Fig. 103, where the head, consisting of a curved spike, a hammer and a lance-blade, may be seen. It was the weapon usually wielded by knights fighting on foot during the fifteenth century and thus attained a degree of importance which it had never held

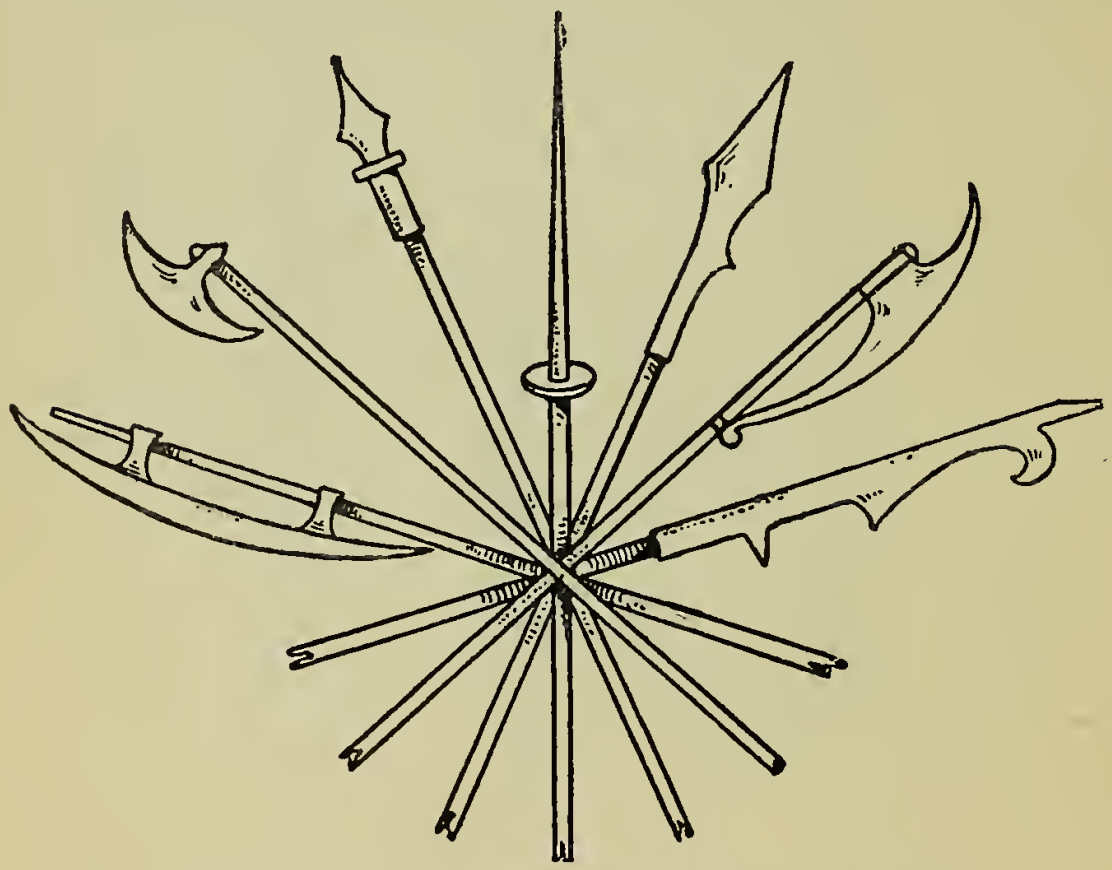


Fig. 110. WEAPONS FROM ROY. MS. 20 C. VII
Left to Right: Voulge; Poleaxe; Pike; Pike; Pike; Bardiche; Fauchard (Guisarme)

before. The examples preserved in our collections show that it followed no stereotyped form, for the hammer head became immoderately broad at times, while the spike developed from a short diamond point to a sword-like blade (Fig. 111), and the curved spike to that seen upon a military pick. A simple form of poleaxe in use by the infantry is shown in Fig. 113, No. 1.

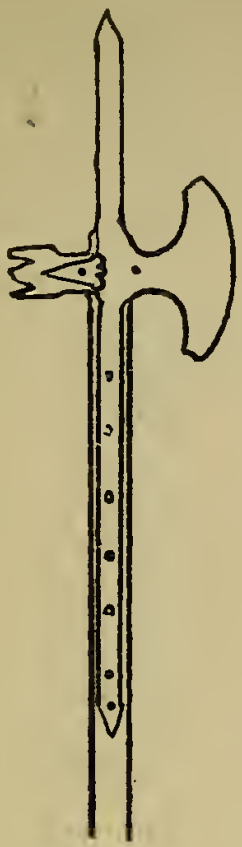


Fig. 111
POLEAXE

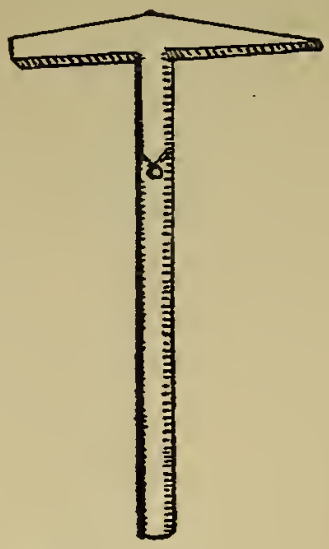


Fig. 112
MILITARY PICK

Fig. 113
1. POLEAXE. 2. FAUCHARD (GUISARME). 3. HALBERD. 4. GLAIVE

The **military pick** was in use from a very early period, as it was found by experience that chain-mail was defenceless against the point, and the hammer end inflicted an injury similar to the mace (Fig. 112). Examples are preserved where the pick point alone is in evidence and others

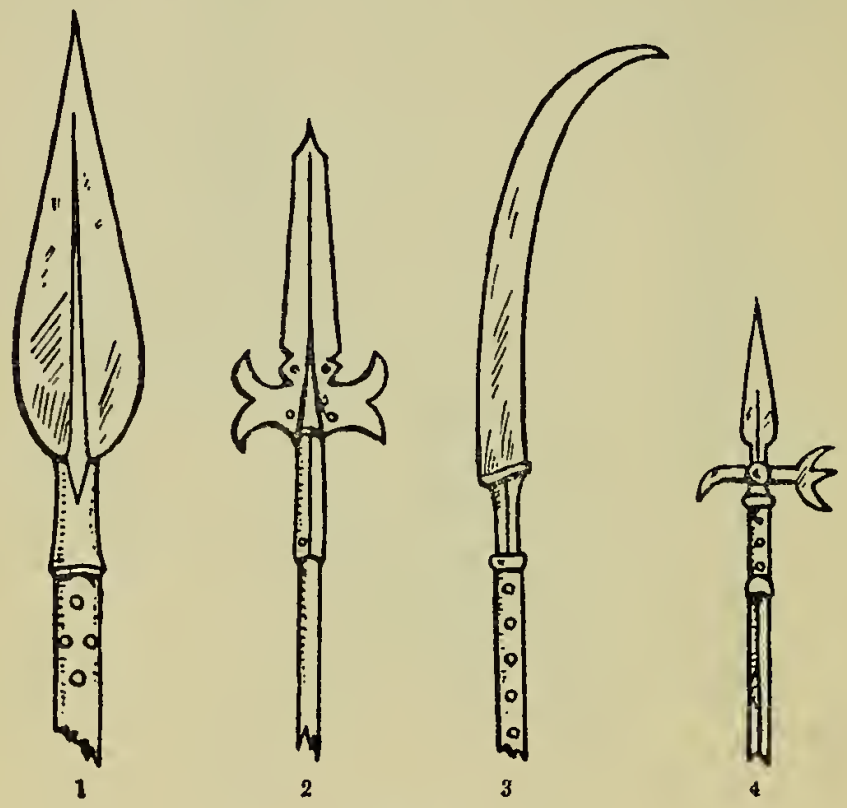


Fig. 114
1. SPONTOON. 2. PARTISAN. 3. GLAIVE. 4. HALBERD

where there are two pointed ends. In that case it is termed a ' bipennis.'

The Glaive.—Figs. 108 (No. 1), 113 (No. 4), and 114 (No. 3) show glaives. The cutting edge is upon the convex side, thus differentiating it from the bill. Divesting it of such appendages as hooks and spikes, it appears as a simple knife-blade, but broader in form and larger than the domestic article. It was more in use upon the Continent than in England, and examples remain which were essentially weapons of parade (see Fig. 108, No. 1).

The Voulge.—This weapon has a broad axe-like blade, pointed at the head, with the cutting edge generally straight. Its method of attachment to the pole was by means of two strong rings forged to the back of the blade. When fitted with a shortened shaft it was at times carried by archers, who doubtless found it of use for sharpening their stakes when it was not required for more deadly purposes (see Fig. 110).

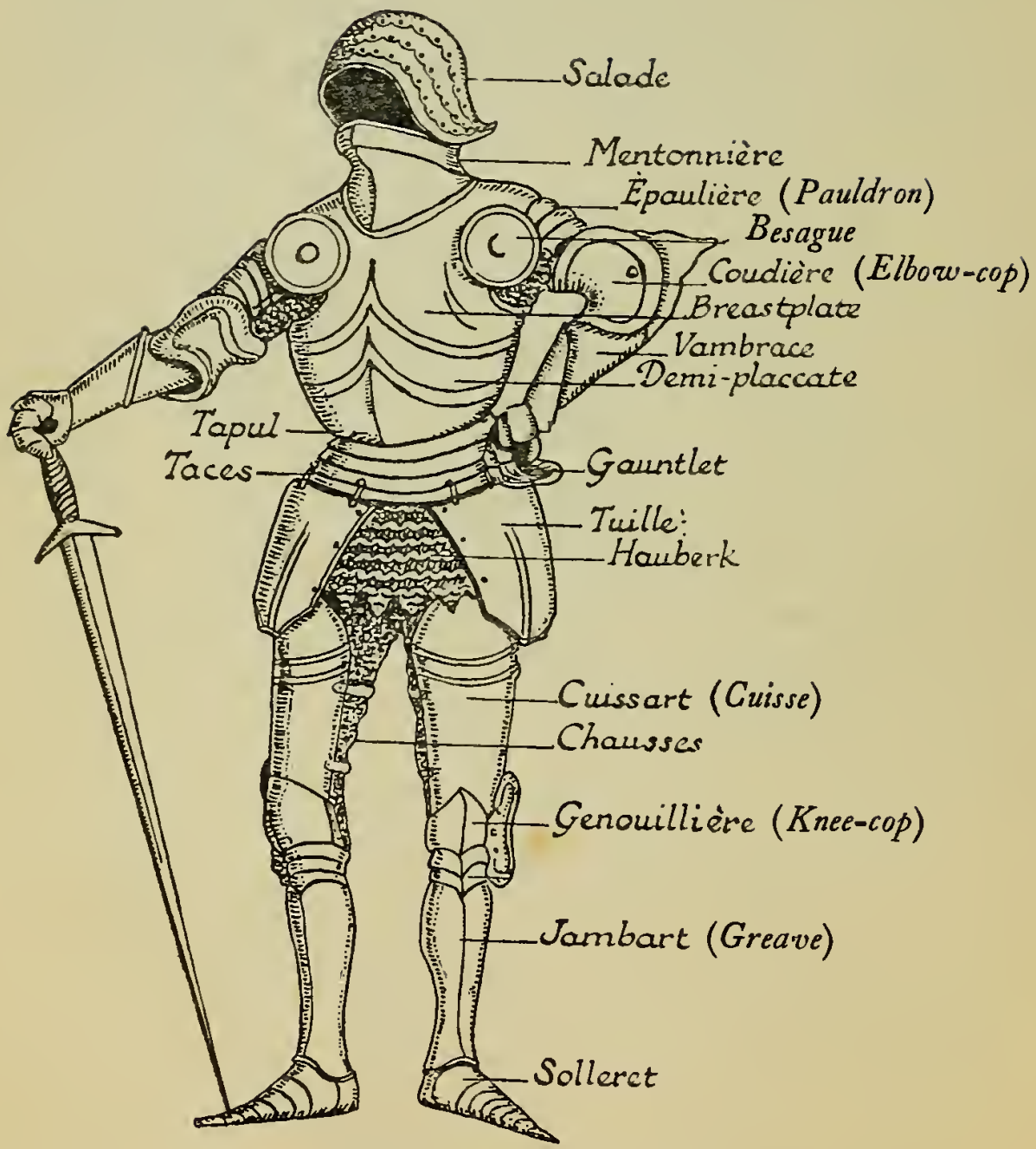


Fig. 115. GOTHIC ARMOUR (*c.* 1470)

CHAPTER IX

THE GOTHIC OR TABARD PERIOD (1430–1500)

Battles, Sieges, etc., during the Period

1453. Castillon.
1455. 1st battle of St Albans.
1459. Bloreheath.
1460. Northampton.
1460. Wakefield.
1461. 2nd battle of St Albans.
1461. Mortimer's Cross.
1461. Towton.
1464. Hedgeley Moor.
1464. Hexham.
1469. Edgecote.
1470. Stamford.
1471. Barnet.
1471. Tewkesbury.
1485. Bosworth.
1487. Stoke.
1491. Dixmude.

Special Additions, Improvements, etc., of the Period

(1) Introduction of the tabard.
(2) Development of the coudière.
(3) Adoption of the salade and mentonnière.
(4) Introduction of the pauldron and standard of mail.
(5) Development of the skirt of mail (later in the period).

Examples for Study

Effigies: Richard Beauchamp, Earl of Warwick (1454), in Beauchamp Chapel, Warwick; Edward Stafford, Earl of Wiltshire (1499), Luffwick, Northants.

Brasses: Sir Robert Staunton (1458), Castle Donington, Leicestershire; John Gaynesford (1460), Crowhurst, Surrey; John Dengayn (1460), Quy, Cambridgeshire; Sir Robert del Bothe (1460), Wilmslow, Cheshire; Sir Thomas Grene (1462), Grene's Norton, Northants; Robert Eyr (1463), Hathersage, Derbyshire; Sir Anthony de Grey (1480), St Albans Cathedral; Edmund Clere (1488), Stokesby, Norfolk; Sir Humphrey Stanley (1505), Westminster Abbey.

THE word 'Gothic' is essentially a term of reproach or adverse criticism; it was applied in derision by the disciples of the Renaissance to a style of architecture which is now considered one of the most beautiful and soul-satisfying the world has ever seen. The term is equally a misnomer when applied to armour, and no one can definitely say how the appellation originated. It is possible, of course, that just as the style of architecture suggested the opprobrious term to those who had no appreciation of it, so the armour of the time became saddled with the unjust adjective.

Fig. 116
GENOUILLIÈRE ON EFFIGY OF ROBERT, LORD HUNGERFORD (1459)
Salisbury Cathedral

Gothic armour is indubitably the most elegant of all the styles, combining the greatest beauty of form with the maximum of protection. Beauty of form is not only perceivable in the suits as a whole, but as a rule any portion of Gothic armour affords delight and satisfaction to those possessed of the necessary artistic temperament. The genouillière, for example, of Robert, Lord Hungerford (1459), in Salisbury Cathedral, is a case in point (Fig. 116). In many of the works of man beauty of outline has only been achieved by the sacrifice of efficiency, but Gothic armour does not fall under this reproach. Against the weapons commonly used in the fifteenth century it showed a marvellous capacity for defence, and thus in all ways exhibited the perfection of artistic craftsmanship. By cunningly contrived grooves and channels and glancing surfaces the lance-point was deflected or diverted, and thus induced to render the energy behind it innocuous. To the shaft-weapons of the footman it presented an impervious surface of highly tempered steel, which was equally disconcerting to the archer.

The assertion has been made by Mr C. ffoulkes in his *Armour and Weapons* that a full suit of armour of this period is "the most perfect work of craftsmanship that exists," and the refutation of this assertion has as yet never been attempted. Certain it is that for beauty of design and for efficacy in the field it was infinitely superior to any defensive equipment preceding it.

The secret of this efficiency resided partly in the shell-like outline of various parts where the undulations introduced, as we have seen, afforded the necessary escaping channels, while the corrugated surface thus produced gave extra resisting power against the sword and mace. But the chief reason may be attributed to the exquisite temper of the steel and the high class of the metal used by the armourers. It must not be supposed by the student of armour that the suits habitually used in England were of home manufacture: as a matter of fact, historical records are strangely reticent respecting the home-produced article while lavish in praise of that manufactured abroad, especially the Italian suit. The armourers of Milan were known in England as early as the end of the fourteenth century, and the troubles caused by the Wars of the Roses led to a demand for good reliable harness which apparently could only be supplied by the Lombardic craftsmen, such as the Missaglias, while the productions of the Kolmans and Seusenhofers of Germany were also in request. The suits thus supplied were extremely costly and beyond the reach of the average knight; as a consequence we may assume that at least 90 per cent. of the defences used in those internecine struggles were of inferior production.

The foreign suits are chiefly those which have been preserved in our national and private collections, especially in the latter, where the armour of a famous ancestor would be almost a matter for veneration. As a consequence, suits

of purely English manufacture are rare, having suffered from three great enemies—rust, the melting-pot, and the tendency to preserve only the finer pieces. There is, however, another reason for the disappearance of armour so completely that out of many thousands of suits formerly in existence only hundreds remain, and that is the remaking and alteration of existing suits so as to adapt them to new owners and more exacting requirements. If this process of discarding portions of old armour and retaining parts which would still serve was carried out many times, a suit would retain little of its original form.

During the age of chivalry, when the tournament was in full practice, the custom whereby the arms and equipment of the vanquished became the spoils of the victor led to the introduction of much foreign armour into England owing to the success of English champions abroad; while the numerous Continental campaigns of the English, resulting in shiploads of loot of every description finding their way across the Channel, provided the chief source of supply. Thus the insular position of Britain proved no barrier to the importation of Italian and German armour, and hindered the exportation, simply for the reason that English armour was to a great extent unknown upon the Continent and therefore not in demand. At the same time, the British believed very considerably in the skill and efficiency of their own armourers and forbade the emigration of these craftsmen by statute. The great internecine struggle waged for thirty years brought out all that was of merit in the armour-smiths, and the result was that under the stress of urgent need they surpassed themselves, and produced toward the latter part of the war an armour so efficacious that the arrow and lance, mace and axe, pike and sword, were almost set at defiance and rendered innocuous.

The Salade.—About the year 1440 a type of helmet came into vogue termed the 'salade,' a French word derived from the Italian *celata*, an engraved helmet (Fig. 117). The shape was evolved from the basinet and the chapelle-de-fer; it was in no way fixed upon the head, or to the body armour, as the basinet and great heaume had been, but, judging from the rivets or fragments of leather remaining on most salades, it appears to have been kept in position by a chin-strap, thong, or cord. This permitted freedom of movement in every direction with unrestricted circulation of air.

Fig. 117
SALADE

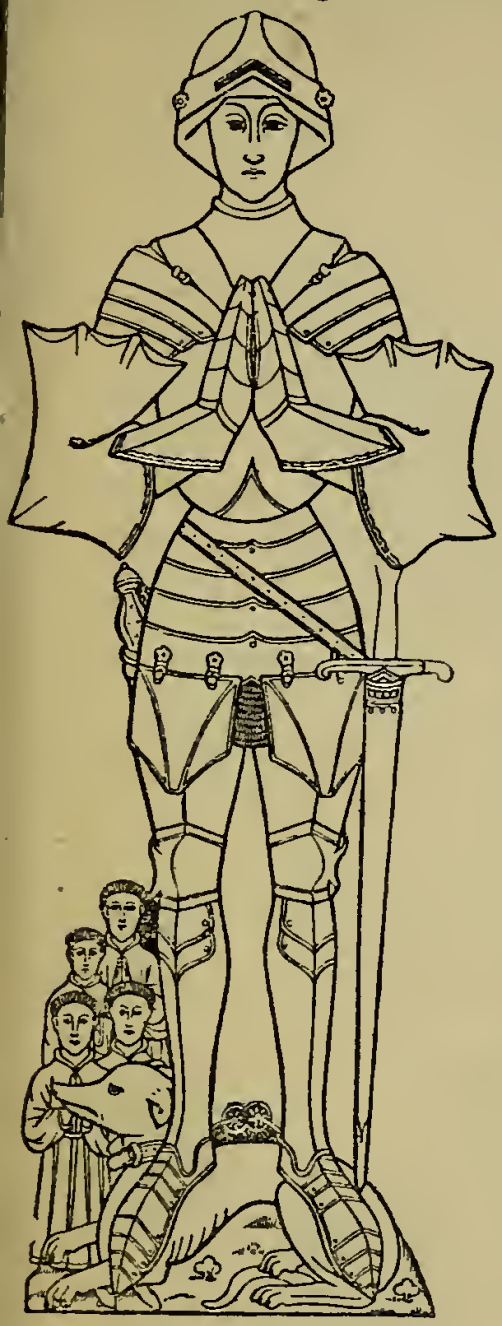


Fig. 118
SIR ROBERT STAUNTON
(1458)
Castle Donington, Leicestershire

Its earliest representation in England is seen upon the brass of Sir Robert Staunton (1458) in Castle Donington Church, Leicestershire, where the salade is wider than usual and is furnished with a visor, containing the occularium, or slit for vision, sliding upon a hidden comb on the crown of the head-piece (Fig. 118). This visor was an addition to the earlier forms, which were generally forged in one piece: the occularium in that case was cut through the front and brought into use by pulling down the

salade over the face. A late and very ornamental development of the salade is seen at Stokesby upon the head of Edmund Clere (1488), where the visor pivots, studs upon the mentonnière, and crowning design upon the skull of the salade are worthy of note (Fig. 119).

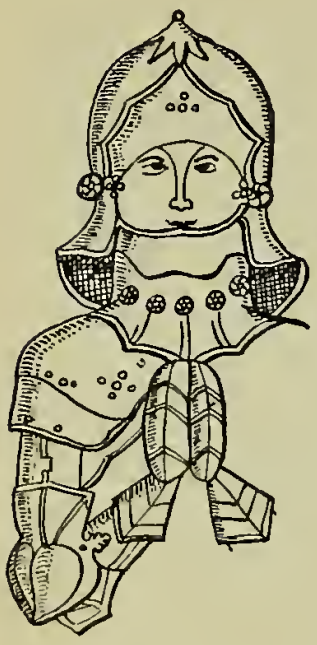


Fig. 119
EDMUND CLERE
(1488)
Stokesby, Norfolk

The mentonnière is usually omitted upon brasses, but its position is well seen in Fig. 120. The neck thus exposed is fitted with a gorget of plate instead of the usual standard of mail prevailing at that time, as seen in Fig. 121. In Fig. 118 the laminated épaulières apparently meet over the chest and would probably do so at the back, but the coudières are the chief points of interest in this figure because of their enormous size.

It is rare at this period to find the coudières of the same pattern, that upon the left arm being generally the larger, the reason being that the knights as a rule discarded the shield and by making the whole of the armour upon the left side thicker and larger in places could receive sword-cuts from opponents with a certain amount of safety.

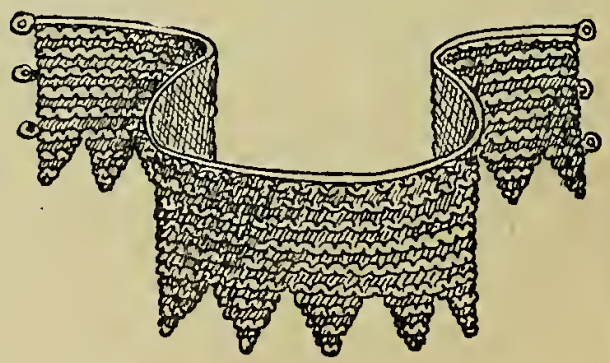


Fig. 121. STANDARD OF MAIL

The coudières were very often of beautiful outline with graceful cusping, as seen in Fig. 122 from the destroyed brass of Reginald de Clerk, formerly in Hordle Church, Hants.

Fig. 120. EQUESTRIAN FIGURE
Wallace Collection (*No.* 620)

The Breastplate.—The cuirass in Gothic suits did not always consist of two pieces, but both breastplate and backplate were sometimes built up in sections, which overlapped each other and imparted an elasticity and freedom of movement wholly unknown before. Upon the Staunton brass (see Fig. 118) one division is seen at the base of the breastplate and the junction of another may be hidden by the gauntlets; these pieces were termed 'demi-placcates.' The taces are not unlike those used in the Surcoatless Period, and attached to the lowest are the tuilles or thigh-guards. The incipient form of these plates has been seen upon the Leventhorpe brass (Fig. 100), where the lowermost tace has been divided into two parts. They varied very much both in size and in shape; occasionally smaller additional plates may be seen at the sides, called 'tuillettes.' Either the hauberk was worn or else a skirt of mail beneath the taces; the genouillières have two reinforcing plates, while guards appear over the rowels of the spurs.

Fig. 122. COUDIÈRE OF REGINALD DE CLERK
Hordle, Hants

Although actual suits of Gothic armour are in existence they suffer as a general rule from restorations, and possibly no suit now extant has every piece preserved intact as it came from the original armour-smith. The parts which generally show most restoration are those protecting the lower limbs, especially the sollerets and grevières.

Chiefly by reason of the foregoing the monumental effigy of Richard Beauchamp, Earl of Warwick, in the Beauchamp Chapel, Warwick, is of exceptional value, since

it represents in metal the exact particulars of every portion of the suit from which it was modelled (Fig. 123). The Earl died in 1439, and although the armour represented was considered by Hewitt to have been made some fifteen years later he probably made insufficient allowance for the advanced forms fashionable in Milan. The contract for the effigy stipulates that it shall be made "according to patterns," a condition which renders unlikely the use of a new and later model. The generally received origin of the suit is that it was the work of one of the Missaglias of Milan, named Tomaso.

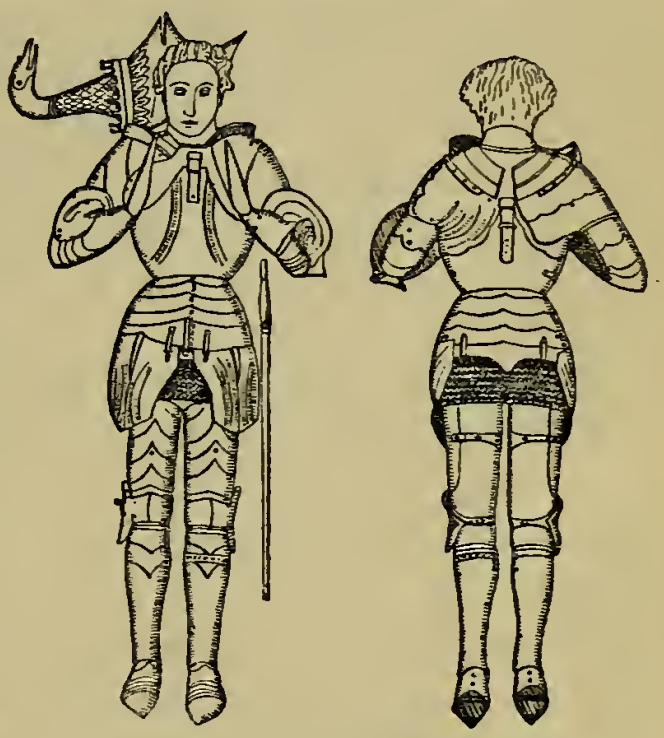


Fig. 123. RICHARD BEAUCHAMP, EARL OF WARWICK (1454)
Front and back views

The contracts for making this magnificent relic of the medieval period have fortunately been preserved and are quoted by Dugdale. We learn that the order for it was given in 1454, the founder being William Austin and the coppersmith Thomas Stevens. The goldsmith who covenanted to gild the effigy and the hearse above it was a Dutchman, Bartholomew Zambespring, and the whole monument took over twenty years to complete. Charles Stothard, the antiquary, had the figure turned over and found that the armour with all its details, such as fastenings, rivets, and straps, were as carefully copied and finished on the back as upon the front. Both views in Fig. 123 were copied from his drawings. One clause in the contract respecting the figure is

as follows: "The said Will. Austin, xi Feb. 28 Henry VI, doth covenant to cast and make an image of a man armed of fine latten [the metal of which monumental brasses are made] garnished with certain ornaments, *viz.*, with sword and dagger; with a garter: with a helm and crest under his head, and at his feet a bear musled, and a griffon, perfectly made of the finest latten, according to patterns, all which to be brought to Warwick and laid on the tombe, at the perill of the said Austin: the said executors paying for the image, perfectly made and laid, and all the ornaments in good order, besides the cost of the said workmen to Warwick, and working there to lay the image, and besides the cost of the carriages, all which are to be borne by the said executors in totall Xl li." The accounts of the executors show that the total cost of the monument amounted to £2481.

This effigy is undoubtedly one of the finest monuments to a dead warrior, if not the finest, preserved to us. The head and hands are bare; under the head rests the tilting helm surmounted by the crest. The breastplate is somewhat short, and consequently five taces are required, and the tuilles are proportionately lengthened. A smaller tuillette is suspended over the hips on either side. The taces are hinged at the side. The coudières are large and of the butterfly-wing type then coming into fashion; while the genouillières meet behind the knees and thus form one of the earliest examples of this method of protection for the hollow of the knee. The methods of adjustment of the various pieces of the suit are full of interest to the student.

The development of the coudière continued, and in the year 1460 we find upon the brass of Richard Quatremayne (Fig. 124) examples which are equal to, or may surpass, those of Sir Robert Staunton (see Fig. 118), and have the

peculiarity that the left differs from the right. Doubtless the teaching of the five years of strife which had succeeded the first battle of St Albans in 1455 had not been lost, and the large pauldrons also seen upon the Quatremayne brass may be ascribed to those lessons. The usual laminated épaulières were worn under the pauldrons, which were

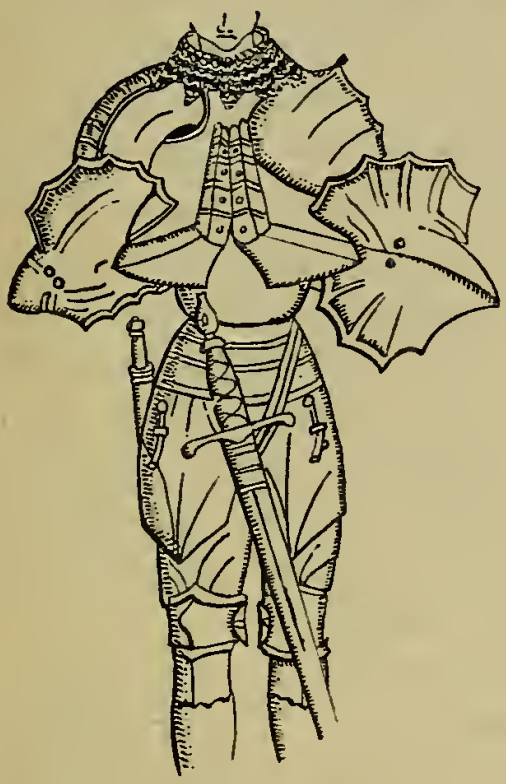


Fig. 124
RICHARD QUATREMAYNE
(1460)
Thame, Oxon

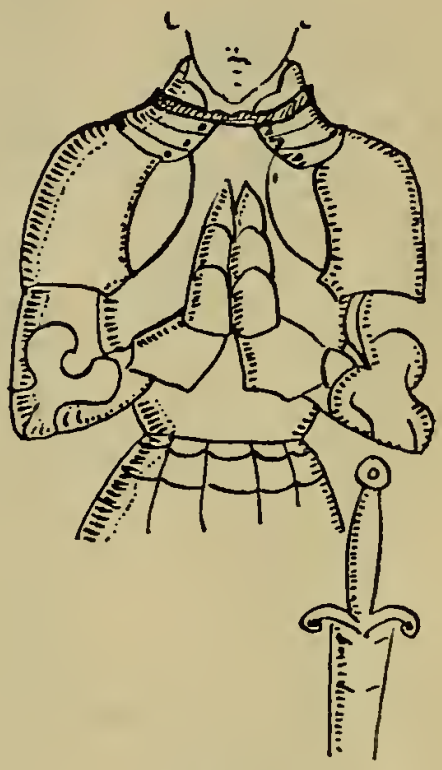


Fig. 125
UNUSUAL PAULDRONS OF
JOHN GAYNESFORD (1460)
Crowhurst, Surrey

essentially a secondary defence. Pauldrons came into use about 1440 in an incipient form, but, once introduced, rapidly grew in favour, and John Gaynesford (1460), at Crowhurst, Surrey (Fig. 125), is depicted with them in an almost fully developed condition. They are of similar form, both shoulders are plain, while the method of attachment by a leather band round the neck and other straps down the slope of the shoulders (not perceivable in the drawing)

is of interest. There is in the beautiful Perpendicular church of Cirencester a brass to Robert Dixton, Armiger (1438), which shows pauldrons of a very advanced pattern for that early date (Fig. 126), and the question has been advanced as to whether or not the brass had been executed some time after the interment and consequently represented later armour. The pauldrons in question differ essentially from each other, the left one being cusped and ridged as a protection against the sword, battle-axe, and the deadly poleaxe, while the right one is so fluted as to carry off into space the coronal of a lance. The five taces of the Staunton brass (see Fig. 118) have now been shortened to three, while the tuilles have been proportionally elongated to afford protection to the thighs. The right pauldron in Fig. 127 (Sir Thomas Sherneborne) exhibits the aperture under the arm for holding the lance, but no lance-rest is apparent. The latter appeared a few years later, being shown upon the brasses of Sir Thomas Grene (1462) in Grene's Norton Church, Northants (Fig. 128), and Henry Paris (1466 ?) at Hildersham, Cambridgeshire. This was by no means the date of their introduction, as they had first appeared about the commencement of the Camail and Jupon Period.

Fig. 126
ROBERT DIXTON
(1438)
Cirencester

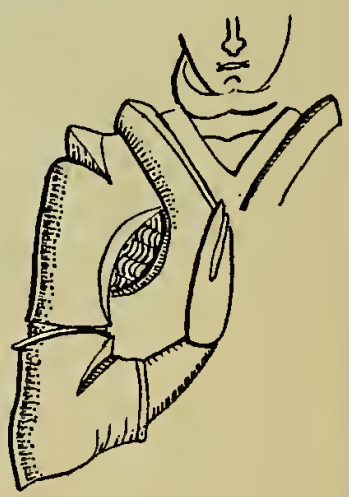


Fig. 127
PAULDRON OF SIR
THOMAS SHERNEBORNE
(1458)

The exaggerated style of coudières was not universal, as we find many brasses of that age which do not exhibit it. John Dengayn (1460), for example, whose brass lies in Quy, Cambridgeshire (Fig. 129), exhibits examples which are fairly moderate in size, though the straightening of the right arm for wielding the sword must have been a problem. Upon his left pauldron appears an example of the many devices adopted at that time for arresting a sweeping sword-cut aimed at the shoulder and neck, called the neck-guard; these were subsequently considerably enlarged to withstand the blows of staff weapons like the pike and bill, and hence are at times called 'pike-guards.' They subsequently, in the Maximilian Period, were vertical as the result of a gradual development from the simple comb-like projection as seen upon the Grene brass, and a double-knobbed spur as upon the brass of Robert Eyr (1463) at Hathersage, Derbyshire (Fig. 130). The latter brass exhibits in a very marked degree the

Fig. 129
JOHN DENGAYN (1460)
Quy, Cambridgeshire

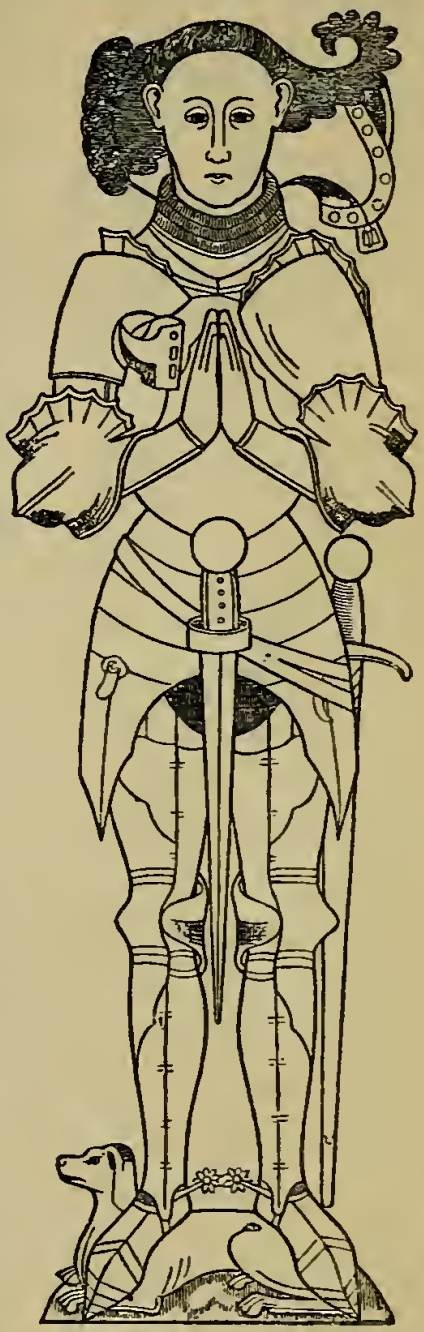


Fig. 128
SIR THOMAS GRENE
(1462)
Grene's Norton, Northants

beginning of the transition from the comparatively smooth outline of the Gothic armour of the Lancastrian Period to the 'prickly' defences which characterized Yorkist armour. The prolongation of the pauldrons over the chest so as to reinforce the upper part of the breastplate, seen in the Eyr brass, is a remarkable feature of this specimen, and doubtless was an individual effort to secure protection for one of the vital portions of the body. The great variety of form which is exhibited by the armour represented upon sculptured effigies and monumental brasses of this time undoubtedly points to the fact that at this momentous period of English history, when battle followed battle with only a few months' interval, and the defence of life and limb was of paramount importance to a large proportion of the population, individual efforts were made to stimulate the inventiveness of native craftsmen. Some of the armour at this time, as, for example, that represented of Sir Robert del Bothe (1460) in Wilmslow Church, Cheshire (Fig. 131), is almost grotesque in outline, and illustrates the frantic efforts of the combatants to mitigate

Fig. 130
ROBERT EYR (1463)
Hathersage, Derbyshire

Fig. 131
SIR ROBERT DEL BOTHE
(1460)
Wilmslow, Cheshire

the deadly effects of the weapons of that age and especially that of the poleaxe (Fig. 132), the use of which, formerly confined to the rank and file, became in the fifteenth century the favourite weapon of their leaders.

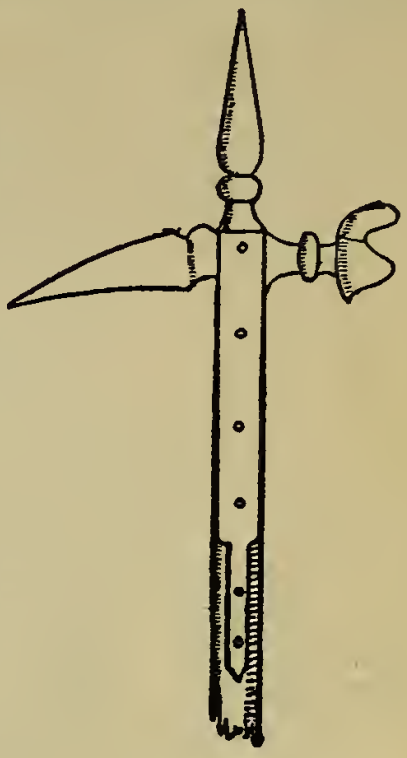


Fig. 132
POLEAXE

The long-toed sollerets prevailing at this time occasionally gave rise to peculiar inventions; in the Berne Museum we have an example of a stirrup designed to fit over the long toe. It has a very lengthy toe formed *à la poulaine* of laminated pieces of plate, and is dated *c.* 1460 (Fig. 133).

The practice of dismounting before a battle and, after cutting the straps of the sollerets, fighting with the poleaxe on foot was doubtless occasioned by the numerous enclosures, farm buildings, hedges, and ditches which prevented the charging of serried ranks of steel-clad cavalry with spear in rest. In addition, many combats took place in towns and populous districts, where the lance would have been a useless encumbrance. The poleaxe in general use was that which combined the hatchet, pike, and serrated hammer, and it dealt wounds similar to those inflicted by the sword, the lance, and the mace. The spirited drawing left us by John Rouse, the Warwick antiquary, in Cott. MS. Julius E. IV (see Fig. 103) exhibits armour of the first half of the fifteenth century and illustrates the combat between

Fig. 133
STIRRUP FOR FITTING OVER THE LONG TOES
(*c.* 1460)

the romantic Earl of Warwick and Sir Pandulf Malacat, the latter being wounded in the shoulder. The spike upon the butt-end of the pole, and also the guard for the hands, should be noted.

The military equipment of the men-at-arms during the Wars of the Roses may be gleaned from the representation of two engaged in combat (Fig. 134). Both show abbreviated taces, but the one prone upon the ground has the skirt of mail which came into fashion toward the latter part of the Gothic Period, together with smaller tuilles. The cusped sword he holds is unusual.

Fig. 134. MEN-AT-ARMS (15TH CENTURY)

The completeness of the equipment of these men-at-arms (equivalent to the cavalrymen of the present age) may come as a surprise to the reader, who very naturally supposes that complete suits of armour were only worn by the knights and nobles. We read, however, that fortunes were spent upon the body-guards of the leading persons of the fifteenth century, so that their followers might make as goodly a show as possible and give dignity to the commanders. The completeness of their equipment may be gathered from the following extract from a medieval writer, who, about 1470, states that after a battle "We had a great number of stragglers following us which flocked about the men-of-arms overthrown and slew the most of them. For the greatest part of the said stragglers had hatchets in their hands, where-

with they used to cut wood to make our lodgings, with the which hatchets they brake the vizards of their headpieces and then clave their heads; for otherwise they would hardly have been slain, they were so surely armed, so that there were ever three or four about one of them."

The reinforcement of the genouillière during this period is well shown upon the brass of Sir Thomas Sherneborne (1458) (Fig. 135), from which it will be seen that the guard for the hollow of the knee foreshadowed upon the Beauchamp effigy was followed up; and many examples upon brasses and effigies are to be found, that of Sir William Yelverton (*c.* 1470) being interesting by reason of the genouillière meeting the tuilles (Fig. 136). The old danger from the thrust of a pike from a foot-soldier was countered by the thick steel plate carried completely round the knee.

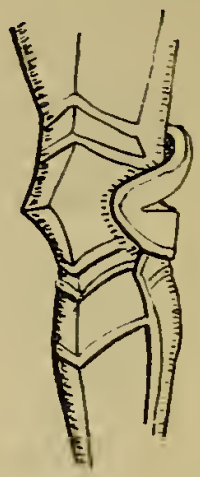


Fig. 135
GENOUILLIÈRE ON BRASS OF SIR THOMAS SHERNEBORNE (1458)
Shernbourne, Norfolk

Fig. 136
GENOUILLIÈRE OF SIR WILLIAM YELVERTON (*c.* 1470)
Rougham, Norfolk

The middle of the fifteenth century also witnessed the advent of the garde-de-bras, or extension of the coudière, designed to protect the inner bend of the arm (Fig. 137). This invention was destined to become permanent, and is a distinguishing feature of the suits of the sixteenth century: it is foreshadowed in an innovation which is shown in embryo upon a figure in Roy. MS. 14 E. IV, probably of the Camail Period, and is furnished with a spike (Fig. 138).

In dealing with Gothic armour, and its gradual development in England by the addition of various features in

use until about the time of the Wars of the Roses, one has to bear in mind that many of these innovations had originated previously upon the Continent, where body defences were always thirty or more years in advance of our insular armour. The natural wariness of the Englishman at the present time in not adopting other nations' inventions until they have proved their efficacy was very strongly evident in the Middle Ages. Thus the representation of the battle of Brescia (1402) by Amadeo in the Certosa, Pavia, of which a copy may be seen in plaster in the South Kensington Museum, shows features which, even if we place the date of execution at thirty years later, did not reach England until well on into the fifteenth century. The armet, for example, is seldom found here before 1500 and, as we have seen, demi-placcates and elongated tuilles were of late introduction, yet they are shown fully developed upon the work in question.

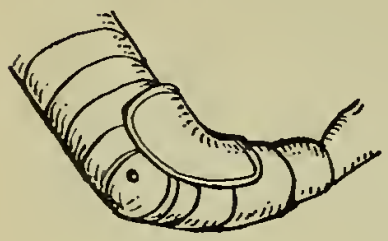


Fig. 137
GARDE-DE-BRAS OF JOHN FITZ ALAN, EARL OF ARUNDEL (1433)

The development in armour during the Wars of the Roses was accompanied by improvements in the field which were put into use for the first time in Britain. Thus, in the second battle of St Albans in 1461, Warwick (afterward the "King-maker") endeavoured to make the front of his army unassailable by means of various defences added to the usual defensive earthworks. Stout cord nets eight yards long and four feet high were firmly fixed upright by means of iron rods in order to check an attack (similar to the modern use of barbed wire) while allowing arrows to be discharged through the meshes. Curious spiked lattices are also described which were

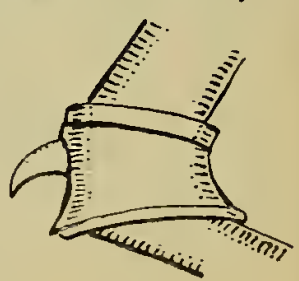


Fig. 138
SPIKED COUDIÈRE

placed upon the ground and formed a species of gigantic caltrops designed to hamper or prevent cavalry charges.

Hundreds of pavises, or door-shaped shields, of thick planks were in use: these were supported by stakes from behind and protected the archers or arbalestiers while they discharged arrows or quarrels through holes pierced for the purpose. The lighter kind of pavise carried by crossbowmen of the period had a central groove running down the back to accommodate the stake (Fig. 139). Pavises would also be in use for protecting the artillers serving the crude artillery and bombards which are known to have been used by the Yorkists.

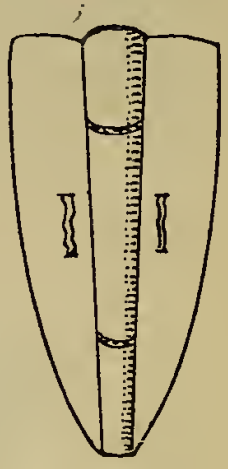


Fig. 139
PAVISE

But perhaps the greatest innovation at this battle was the use of a body of mercenaries termed Burgundenses, or Borgeners, or Burgeners, *i.e.*, Burgundian hand-gun men, whom Warwick had hired from Flanders (Fig. 140). A section of these men were petardiers, or throwers of bombs or petards containing Greek fire or 'wilde fire'; the prevailing dread of this fiery missile was out of all proportion to the amount of injury generally inflicted. The fire was contained in perforated earthenware pots, which, when ignited, were hurled with both hands by the petardiers. A swordsman with a hand-and-half sword and a circular buckler is represented in Fig. 141, taken from a mid-fifteenth-century parchment (Roy. MS. 18 E. V) preserved in the British Museum. The petardier in the same figure is in complete plate; the swordsman has upon his salade an adjustable visor, which could be lowered to meet the projecting mentonnière; a mail hauberk shows at the neck and skirt, over which is a leather jacque. The arms are in plate, but the lower limbs appear unprotected; the buckler is hollow and is held by a lanier,

or strap. In spite of Warwick's elaborate preparations he lost the battle, as the Lancastrians attacked him upon the flank and rear and simply doubled up the long lines of defenders in succession, an operation upon land similar to Nelson's favourite method at sea. The first attack had been defeated by a body of archers placed round the base of the unique belfry occupying the centre of the

Fig. 140. BURGUNDIAN HAND-GUN

town, for when Margaret's troops attempted to emerge from a narrow street into this open space a withering blast of arrows swept away the head of the column as fast as it was renewed, leaving behind a great pile of dead and wounded. The Lancastrians then sought a more advantageous site with the success above mentioned. The arrows used at that period by the military were of two kinds. The flight-arrow was lightly feathered, had a short head (or pile), was a yard in length, and with proper elevation

could kill at 240 yards or more. The sheaf-arrow had heavier piles, required but slight elevation, was often shot at point-blank range, and was essentially for close fighting. The difference between the flight-arrow and the sheaf-arrow caused the loss to the Lancastrians of

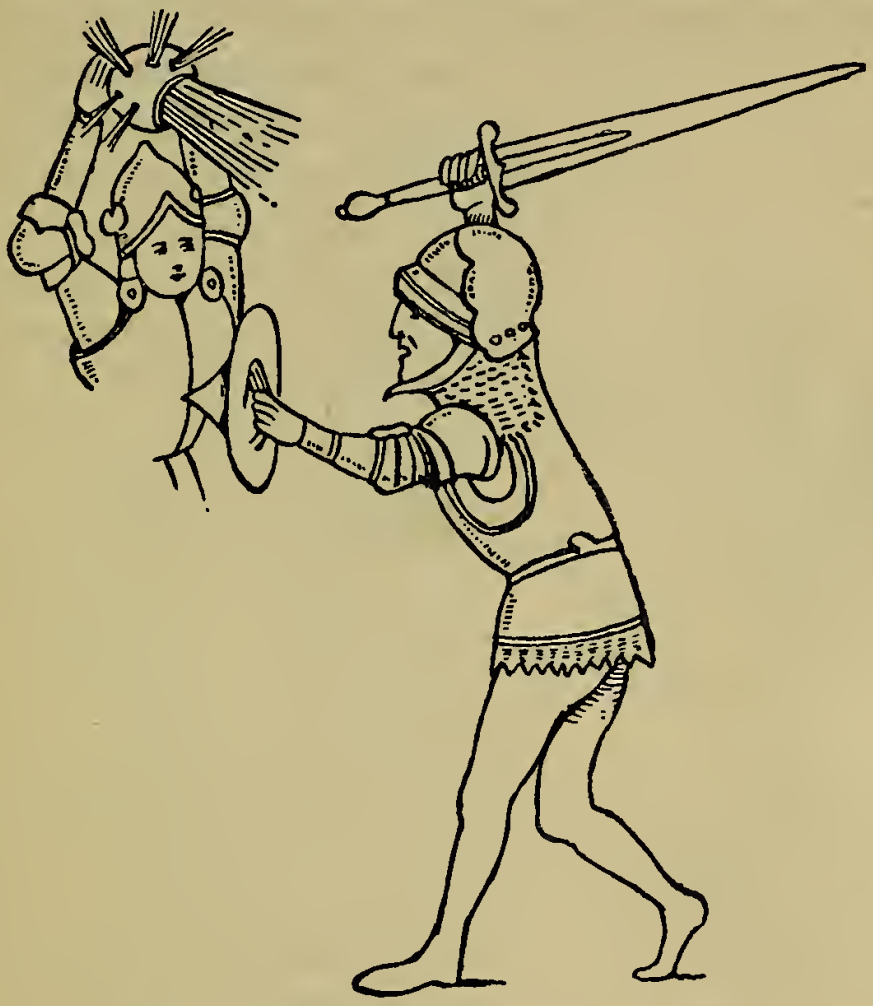


Fig. 141. PETARDIER AND SWORDSMAN

the terrible battle of Towton. Lord Faulconbridge, perceiving that the blinding snow was blowing in the face of the Lancastrians, ordered his Yorkist archers to discharge a shower of sheaf-arrows at a greater elevation than usual, and then to fall back for a space and wait. The enemy fell into the trap and, thinking their adversaries were close at hand, let fly sheaf-arrows so thickly that when the Yorkist archers came on with full quivers the Lancastrians

were caught in a half-disarmed condition and so were unable to offer any effective resistance.

The costume of the archer of the fifteenth century is one of the most picturesque ever devised, combining the maximum of freedom for the limbs with good defences for the head and body. The salade, often with a visor in front, was in general use, the chapelle-de-fer being a second favourite; a chain-mail hauberk covered the body and part of the arms, over which was generally a jacque of pourpointerie, the consistency of which was similar to that described before. In Fig. 142 an archer is shown discharging a sheaf-arrow, the flight-arrows being in a loop of his girdle. He wears a sword which was often substituted for one of a scimitar-like form or a maul (mace) of lead, or an axe, there being no uniform dress or equipment as yet, each man following his own fancy; a demi-placcate over the jacque was a favourite method of adding to the smart appearance. Judging from the illustrations in Roy. MS. 14 E. IV, the French archers, arbalestiers, and men-at-arms shared with the English the disdain of covering the face when in battle, most of the visors being raised and the wounds appearing mainly in the face and throat.

Fig. 142
ARCHER DISCHARGING A SHEAF-ARROW

The Gothic Period is often referred to as the 'Tabard' Period from the fashion of wearing that article of attire

over the armour. It consisted of two loose pieces of silk or other rich material hanging down back and front to about mid-thigh and fastening upon the shoulder, where at times (see Fig. 103) short sleeves were inserted. As the period progressed it became sleeveless and much shorter. It protected the armour from wet and also from the heat-rays of the sun, but the chief use was to display the heraldic cognizance of the wearer in consequence of the shield being discarded. As might be expected, the tabard of arms varies considerably in richness according to the rank of the wearer and the number of his quarterings, that of William Fynderne (1444), Childrey Church, Berks, being comparatively plain, while upon a recumbent effigy of Edward Stafford, Earl of Wiltshire (1499), in Luffwick Church, Northants, is an elaborate example. The effect of heat-rays upon plate armour is summed up by Shakespeare, who says :

> A rich armour worn in heat of day
> That scalds with safety.

The tabard of arms, which gave rise to the term 'coat of arms,' was in continuous use in the fifteenth century, and it is also seen upon brasses and effigies dating from the first half of the sixteenth century.

The knightly armour toward the end of the Wars of the Roses is well seen upon the brass of Sir Anthony de Grey (1480) in St Albans Cathedral (Fig. 143). The head rests upon the tilting heaume ; the V-shaped occularium, turned upward by the engraver so as to be rendered visible, is seen over the right shoulder, and the lower part of the heaume with the lambrequin, or pendent scarf, and staple for affixing to the breastplate is visible above the left shoulder. Round the neck is the hausse-col or standard of mail. The pauldrons illustrate a type which prevailed at

the period; the Playters brass (1479) at Sotterley, Suffolk, illustrates this, as does also the le Strange brass (1477) at Hillingdon, Middlesex, and it was continued in almost the same form during the Transition Period which followed. Pike-guards are not apparent, but a reinforcing plate beneath, riveted to the upper plate, may be seen. The coudières are similar in form and of fairly large size, while long cuffs are prominent adjuncts of the shell-gauntlets, which are also clearly seen in Fig. 144. The breastplate appears to be reinforced by two demi-placcates, although the system of making the breastplate in two or more pieces was gradually dying out. Only three taces are shown, from which depend two much abbreviated tuilles and a tuillette on either side. The genouillières have projections guarding the back of the knee. The fashion of wearing the sword in front lasted from *c.* 1460 to 1500, but was by no means universal. The swollen grip of the weapon should be noticed, and also the angle at which the misericorde appears.

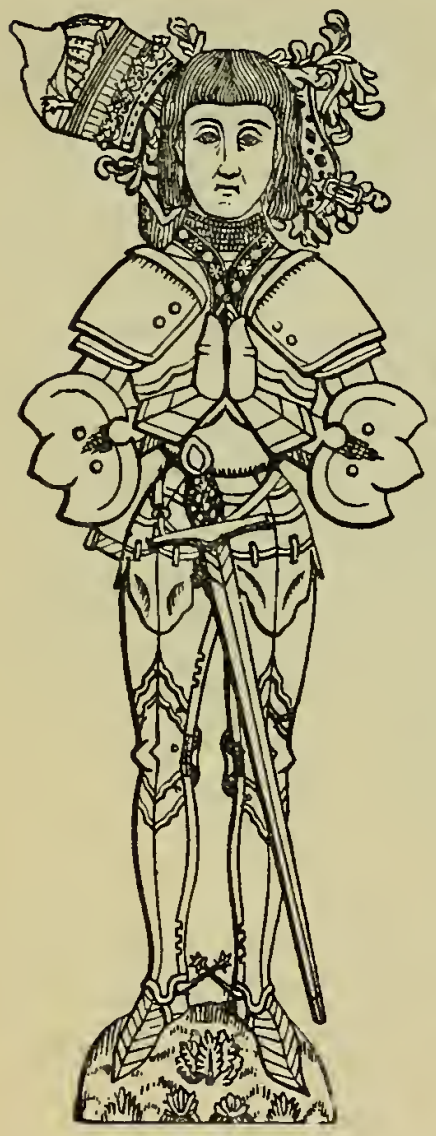


Fig. 143
SIR ANTHONY DE GREY (1480)
St Albans Cathedral

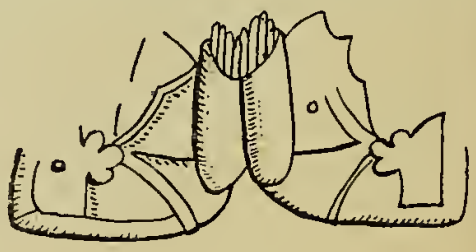


Fig. 144
SHELL-GAUNTLETS

In Fig. 145, showing a part of the brass of Henry Unton at Sculthorpe, Norfolk, is seen the same number of taces,

three, as on the Grey brass just mentioned. Note that the tuilles are not so reduced in size; the sword is worn in front and a tassel depends from the grip.

Fig. 145
PORTION OF BRASS OF HENRY UNTON (1470)

It was in a suit of armour of this nature, according to the illustration given in the Rouse Roll, that Richard III fought the battle of Bosworth in 1485. It has been stated that he appeared in the same suit that he had worn at Tewkesbury in 1471, but that is open to doubt, since in his letter from York he expressly orders three coats of arms "beaten with fine gold, for our own person." Of Bosworth the ballad says:

They encountered together sad and sair,
Archers let sharp arrows flee,
They shot guns both fell [fierce] and fair,
Bows of yew did bended be.
Then the archers let their shooting by,
And joinèd weapons in the fight.
Brands rang on basnets high,
Battle-axes fast on helms did light.

The reign of Henry VII was troubled by pretenders to the throne, and although no great battles ensued yet the nation was kept almost constantly on the *qui vive* for possible insurrections and disturbances. The Lambert Simnel rebellion was crushed at Stoke in 1487. The Irish force was reinforced by 2000 veteran German *lanz-knachts*, who fought with singular bravery; and the wild Irish kerns with their skeans (Fig. 146) and darts, or light javelins, for hurling, of which each man carried two, inflicted great loss on the royal troops, but, being practically without armour and in many cases half naked, they perished in heaps under the deadly sleet of the English archers.

In the sea-fights of this period the old method of using the decks of the vessels as miniature battlefields still obtained, and the two-handed sword, the poleaxe, and the arrow or quarrel decided the conflict.

Fig. 146 IRISH SKEAN

On land the archers added a new weapon of defence and offence to their equipment in the substitution of the halberd for the wooden stake they had previously carried, so that after their arrows were discharged they slung their bows and acted as pikemen. The halberd was at this period about five or six feet in length and consisted of a spike balanced upon one side by an axe-blade and on the other by a pick. They gained a splendid victory at Dixmude over the French; Tout and Powell record that one archer, John Pearson, who was lamed by a cannon-shot, discharged his arrows as he lay until the Frenchmen fled, when he cried to one of his fellows, saying, "Take thou these six arrows that I have left and follow thou the chase, for I cannot."

CHAPTER X

THE TRANSITION PERIOD (1500–25)

Battles, Sieges, etc., during the Period

1513. Guinegate, or Battle of Spurs.
1513. Flodden.

Special Additions, Improvements, etc., of the Period

(1) Almost universal use of the armet and close helmet.
(2) Introduction of the chain-mail skirt.
(3) Substitution of sabbatons for sollerets.

Examples for Study

Brasses: John, Lord le Strange (1477), Hillingdon, Middlesex; Sir John Towchet (1491), Shere, Surrey; Sir Humphrey Stanley (1505), Westminster Abbey; William Berdewell (1508), West Harling, Norfolk; John Fitzlewis (*c.* 1500), Ingrave, Essex.

Armour in the Tower of London and the Wallace Collection.

The armet was probably invented in Italy, and gradually spread into Germany and England (Fig. 147). It is first mentioned in 1443 and was the forerunner and prototype of the close helmet which lasted to the seventeenth century. The evolution from the armet to the close helmet (Fig. 148), and the actual differentiation between the two, are matters almost impossible to deal with in a decisive manner. It is generally assumed that the word 'armet' is derived from 'heaumet,' which is the diminutive of 'heaume.' It may be looked upon as being a combination of the salade and the mentonnière, but the essential difference between the armet and all pieces that had gone before

was that while all the latter had rested on the top of the head, or had been lowered over it, the former closed by

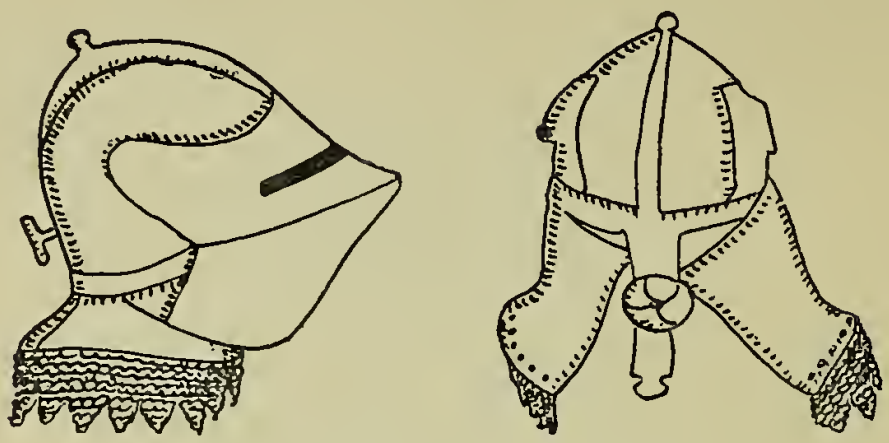


Fig. 147. ARMET CLOSED AND OPEN

means of hinges round the head, the halves following the contour of the neck and chin. The weight was borne by the gorget and thus transferred to the shoulders, thereby allowing the head-piece to be neater, lighter, and much more adaptable than the earlier types, and giving it a fine defensive form for both head and neck. The extremely

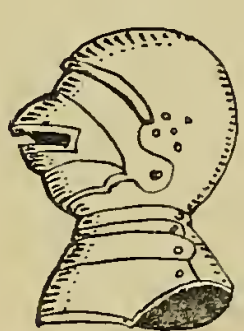


Fig. 148
CLOSE WAR-HELMET

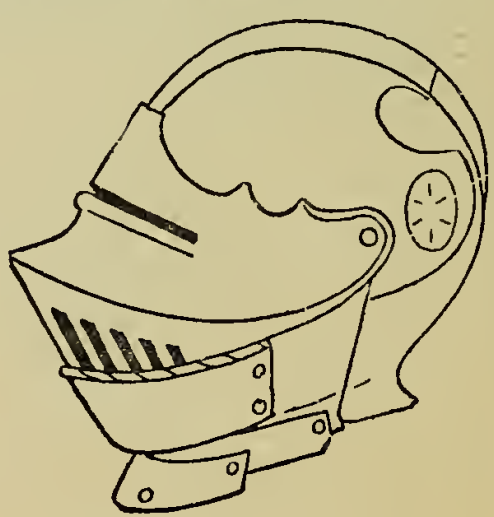


Fig. 149. ARMET (1500)

fine form of armet shown in Fig. 149 dates from 1500: it opens down the sides, and not down the chin and back in the usual manner. It approaches in form near to the

close helmet of the sixteenth century. It should be noticed that the occularium is in the visor instead of being formed by the space between the visor and the crown-piece, and that an incipient comb adds strength to the reinforcement for the top of the skull. The small mentonnière, or bavier, is equal on both sides, but was at times of less extent on the right.

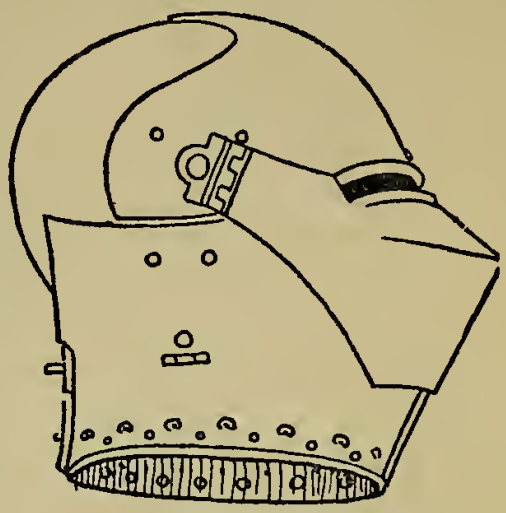


Fig. 150
EARLY ITALIAN ARMET
(*c.* 1450)

The early Italian armets of *c.* 1450 (Fig. 150) had at first a camail or fringe of chain-mail fixed to them by a row of vervelles round the neck; the cheek-pieces, hinged at the back, closed round to the front and were fixed and kept together by the falling visor, which was attached by a strong bolt to a reinforcing piece protecting the forehead. The opening between the upper part of the lowered visor and the front part of the skull of the helmet made an efficient occularium. An armet in the Wallace Collection, dating from 1470 (Fig. 151), has the camail holes well defined and also the short stem of the usual projection at the back of the neck, but not the roundel itself. The exact use of this disk is not known, but probably it was to protect the opening at the back, the weakest part of the armet. A later improvement upon the head-piece was a ridge or comb running over the

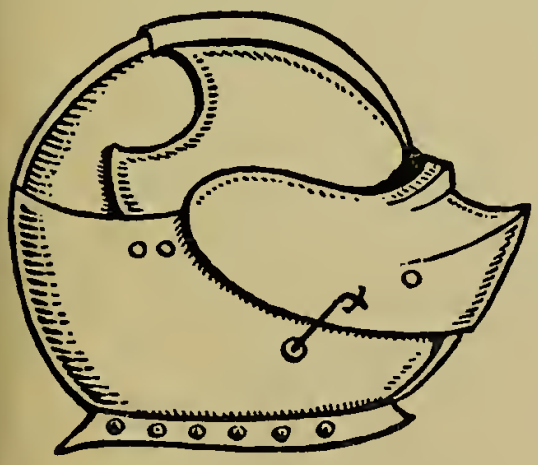


Fig. 151. ARMET (*c.* 1470)
Wallace Collection (*No.* 84)

forehead to the back of the neck, the lower part opening at the side and not at the front.

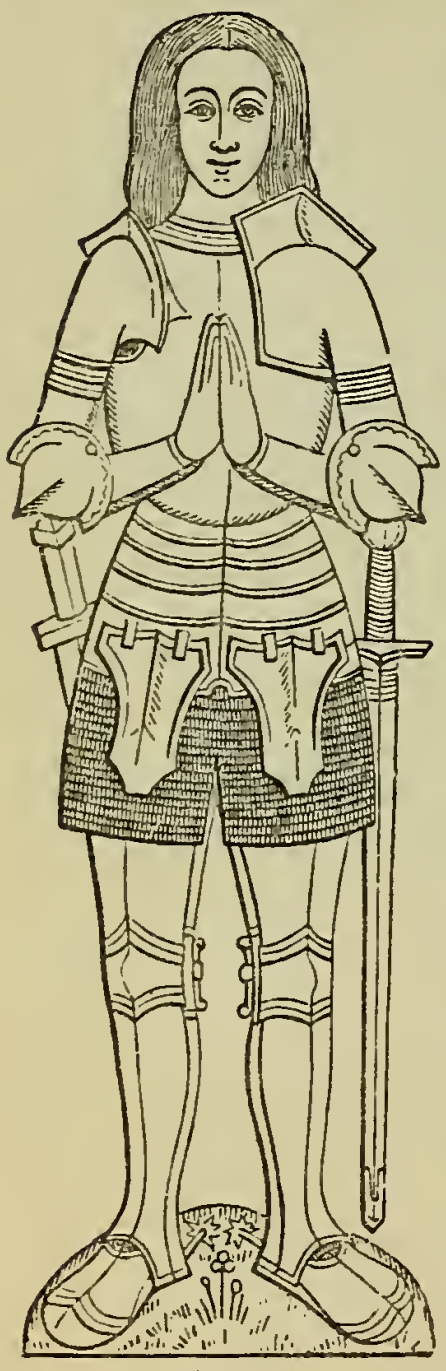


Fig. 152
SIR HUMPHREY STANLEY
(1505)
Westminster Abbey

The Burgonet.—About the beginning of the sixteenth century an improvement upon the armet was introduced by the Burgundians and named the 'burgonet' from its origin. It was an open helmet made in close imitation of the form of the head, and it corrected the weakness of the armet by affording good protection for the neck, while permitting free lateral movement of the head. The burgonet was not of a fixed pattern, and many varieties may be found, especially during the second half of the sixteenth century, when it became a light head-piece for cavalry, often not weighing more than a few pounds. Lobster-tailed varieties, spider-helmets, and other forms came into use later. The face-pieces of the earlier kind were known as 'buffes' and worked upon pivots or hinges at the side of the skull-piece, being prevented from 'riding up' by straps or pivots, though at times the sole method of fixing was by a strap. The globular crown had generally a comb or ridge traversing it from front to back; a salient umbril shaded the eyes, and a curve usually occurred at the back of the neck to guard it from a

back-handed sword-cut. The more modern examples had larger neck-guards and oreillettes, or pendent steel ear-flaps, with a panache or plume-holder at the base of the skull.

The chain-mail skirt as seen upon the well-known brass of Sir Humphrey Stanley (1505) in Westminster Abbey (Fig. 152) was a feature of military equipment at this time and is a valuable point in the recognition of the Transition Period. It had appeared during the last part of the Gothic Period; for example, it is upon the brass of Sir John Towchet (1491) in Shere Church, Surrey, while another example is that of John, Lord le Strange (1477), at Hillingdon, Middlesex. In the latter case it is very long, reaching nearly to the knees, but as a general rule its termination occurred about half-way down the thigh. It is shown at times slit up in front for convenience in riding, and it is always of very fine mesh. The tuilles lying upon the skirt were at first of considerable size, contrasting in that respect with the diminutive tuilles of twenty years previously, but by the end of the period they had again become small, as may be seen upon part of the brass of John Fitzlewis (*c.* 1500) at Ingrave, Essex (Fig. 153), where tuilles and tuillettes are all apparently of the same size. The reason for this diminution, and also generally for the adoption of the chain-mail skirt, was probably the excessive inconvenience caused to the rider by their presence in the well-saddle which was still in use; mail can adapt itself to such a position more easily than rigid steel plates. Indeed, there are evidences that many knights discarded tuilles entirely at this period, the brass of William Berdewell (1508), in West Harling Church, Norfolk, being an example.

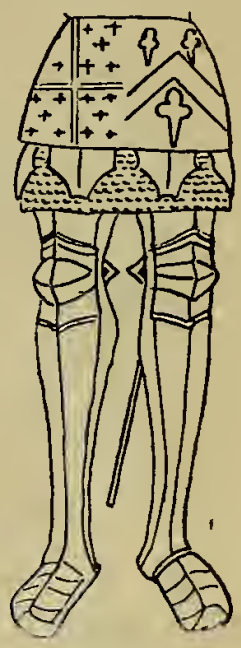


Fig. 153
PART OF BRASS OF JOHN FITZLEWIS (*c.* 1500)
Ingrave, Essex

The breastplate during the Transition Period was globose in form and of one piece, with at times a steel lame in form like a tace attached to the lower edge. This is well shown upon a breastplate of 1510 in the Tower of London (Fig. 154), where a projecting collar is also fitted preventing a lance-thrust from penetrating under the gorget. The protection afforded by lames of plate at the junction of the arms with the body is a noticeable feature, thus obviating the erstwhile gussets of mail. The gorget consisted of laminated plates overlapping upward, riveted at the sides of the neck and sliding easily one upon another; they often extended in the form of plates well down the back and front of the body, pliability being gained by the use of sliding rivets. In this form they could be worn over or under the breastplate and backplate.

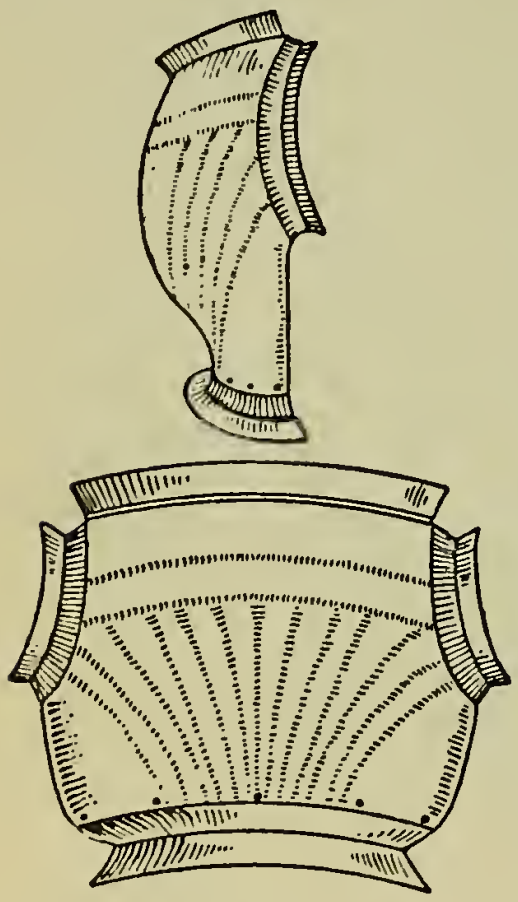


Fig. 154
GLOBOSE BREASTPLATE (1510)
Tower of London

Pauldrons became less in size as the period advanced, and gradually gave way to the system of lames of steel, generally overlapping upward, with a pike-guard upon an enlarged lame on one or both sides of the neck (Fig. 155). The lames were extended over the chest and the back and afforded a good protection for the vif d'harnois. The suit of armour illustrated is in the Tower of London and was made for Henry VIII, for fighting in the lists. It is one of the finest in the world, and is composed of 235 separate pieces of metal weighing 92 lb.,

most ingeniously put together to allow of a maximum of freedom combined with adequate protection. It permits, however, only slow movements, and running, sitting, raising the arm higher than that shown in the figure, or recovering the erect position if overthrown are impossible. As an exemplification of the highest ability of the armourer's craft it is possibly unsurpassed. The weapons wielded were probably the poleaxe, the two-handed sword, and the pike.

The substitution of the 'sabbaton' for the solleret occurred in this period, although it had been foreshadowed in the Gothic Period, and the brass of Piers Gerard (1492) at Winwick, Lancashire, exhibits them. These broad-toed innovations are shown in Fig. 155.

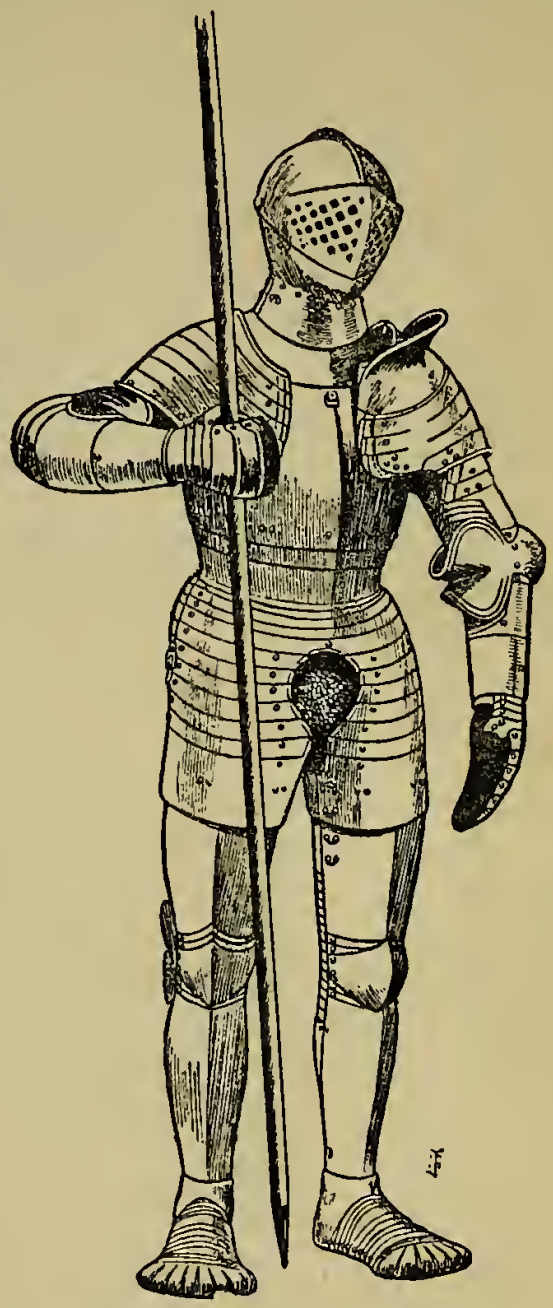


Fig. 155. SUIT OF ARMOUR FOR FIGHTING ON FOOT, MADE FOR HENRY VIII

Tower of London

It will be readily gleaned from the last few pages that no radical change in military accoutrement occurred during the Transition Period and that the twenty-five years of its duration simply meant, as the name implies, a passing from one style to another. There was to a great extent no grace or beauty developed in armour during the period, for he would be a bold man

who asserted that the figure, say, of Sir Humphrey Stanley possessed these attributes. The figure is suggestive of a style which occurred over a century later and has been termed the 'boiler-plate' period. The beautiful curves and graceful cusps of the Gothic Period have disappeared and given place to a heavy, cumbersome design suggestive of German stolidity, in marked contrast to the active energy suggested by the lines of the Plantagenet age. It is only fair to state that all brasses and effigies do not show this tendency and that some, as, for example, that of Sir John Cheney (1509), in Salisbury Cathedral, exhibited the old taste for the chaste and beautiful, while the French, if we may judge from the Bayard armour (*c.* 1520) in the Rotunda at Woolwich, preserved the same feeling.

CHAPTER XI

THE MAXIMILIAN PERIOD
(1525–1600)

Battles, Sieges, etc., during the Period

1542. Haddenrigg.
1545. Ancrum Moor.
1547. Pinkie.

Special Additions, Improvements, etc., of the Period

(1) Introduction of fluted armour.
(2) The addition of ' extra pieces.'
(3) The introduction of the bear's-paw sabbaton.

The Emperor Maximilian I, who had for a number of years been the staunch ally of Henry VIII against the French, died in 1519. He had during the course of an adventurous career devised a style of armour which, though to a great extent unsuitable for the battlefield, was eminently adapted by its design and beauty for the tilt-yard, and being, like Henry VIII, passionately fond of pomp, glory, and circumstance he indulged his taste to the full in the tournament and in every kind of military display. The English King was only too ready to follow in his footsteps, and the suits preserved in the Tower of London, which were presented to him by the Emperor, testify to his eagerness to prove to his subjects that he was " the only man in England."

The special feature of the Maximilian style is the system of fluting which appears upon every part of the suits except the jambarts, which are always plain (Fig. 156). The corrugations were not only ornamental, but added to the

strength of the armour in resisting blows of the mace, the edge of the sword, and the poleaxe, while they lessened the probability of injury from the lance and the pike by deflecting their points into channels which would conduct them away from the body. Thus every flute was made with the object of carrying away the impetus of a shafted weapon. With the same object in view the surface of the burnished steel was made intensely hard and with the minimum of projections which might give a hold to the coronal of a lance or the point of a pike. The flutings added materially to the strength of the suits without increasing their weight, a fact which has been utilized in the modern corrugated iron for roofing purposes, which will stand far greater pressure and give more rigidity than the same weight of metal used flat.

Fig. 156
MAXIMILIAN STYLE ARMOUR

This essentially German armour, when first introduced, possessed an undeniable beauty of its own, which makes its collection at the present time a source of enjoyment to ardent connoisseurs. But, with the well-known national trait of not being satisfied with a good result and trying for a better, the Teutonic armourers began, soon after its introduction, to make armour of a grotesque and bizarre nature in order to satisfy a passing fashion. This development is exemplified in the portrait-statues of the contemporaries of Maximilian round his cenotaph in the church at Innsbrück. At the beginning of the sixteenth century no one was considered to be of importance unless he were endowed by nature with great girth of body and a fair stature, and, possibly as a result, armour was often made

too large for the wearer, just as the civilian costume exaggerated the apparent grossness of body. A reflected instance of this tendency is the well-known proportions of Henry VIII.

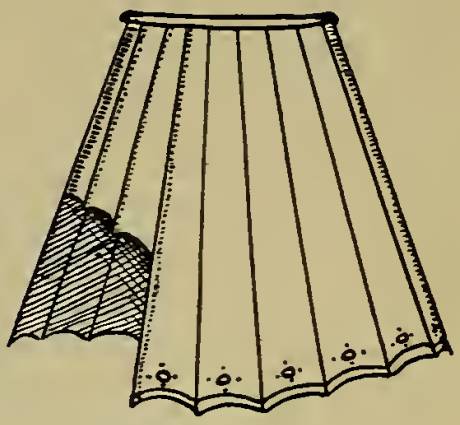


Fig. 157. LAMBOYS

At this time also was seen the first appearance of a fashion which perhaps had more than anything else to do with the decadence of armour; this was the imitation in metal for defensive purposes of civilian fashion in dress. The craftsmen no longer turned out suits of steel which represented the highest type of beauty of form combined with excellence of protection. Probably the first armourer who imitated in steel the civilian drapery which hung in folds from the waist and covered the thighs, the 'lamboys,' was ashamed of himself, but the idea was only too readily adopted, and the 'bases' became acknowledged parts of military equipment (Fig. 157). The imitation of lamboys in steel was termed 'jamboys' by some writers, and the tonlet suits, used solely for fighting upon foot (Fig. 158), were provided with them. For riding purposes portions of the bases were removed. These bases were in many cases constructed of laminated hoops similar to the taces of preceding periods, which were made pliable to a certain extent by an elaborate system of 'Almayne rivets,' or sliding rivets, whereby they could be raised or lowered, somewhat after the fashion of Venetian blinds. The removal of certain

Fig. 158
TONLET SUIT

pieces to enable jamboys to be used on horseback was not so necessary with these pliable skirts, though they must have been seriously inconvenient if used for any other purpose than fighting on foot. These tonlet suits are often beautifully engraved and have a wealth of decoration bestowed upon them. The feature of 'slashing,' so prevalent in civil costume in the time of Henry VIII, was also imitated in armour, and an excellent example of slashed armour for fighting upon foot, and dating from *c.* 1520, is preserved in the Wallace Collection (Fig. 159). It consists of a globose breastplate, taces of three lames, and tassets (superseding the old tuilles) of four, and an arrangement of five plates behind takes the place of the garde-de-rein or kidney-guard of Gothic suits.

The principle of ornamentation of armour, once introduced, led to suits being made which for grace and beauty of decoration have never been surpassed, and probably one of the reasons why Maximilian armour is so prized is that its decoration appeals so strongly to the æsthetic sense. All the arts of engraving, damascening, embossing, and gilding were called upon to aid in producing suits such as had never before seen the light, and in many museums helmets, breastplates and backplates, gauntlets, parade-shields, halberds, swords, daggers, horse-armour, and a great variety of other objects remain to excite admiration for their beauty and the skill of the artificers who wrought them. We are painfully cognisant of the fact that they are for show and parade and not for use, and that the soldiers of the sixteenth century discarded them when a campaign began, precisely as the British Guardsman doffs his bearskin and scarlet, or his breastplate and helmet, and takes to a more serviceable suit of khaki when upon active service. In Chapter X the helmet prevailing at the time of the Transition Period was fully

described; in the Maximilian Period the same type continued in fashion, modified in various ways as time or taste demanded.

Fig. 159. THREE-QUARTER 'PUFFED AND SLASHED' ARMOUR (*c.* 1520)
Wallace Collection (*No.* 379–80)

The **close helmet** was the pattern most used; as we have seen, it was evolved from the armet, while the burgonet came into favour as the period progressed. Perhaps the most universal type of close helmet is that

depicted in Fig. 160, where a falling-buffe, or bevor, protects the lower part of the face, and is kept in position when raised by a forked bar working upon a rivet, while the occularium is lowered into position by pulling down a skull-piece sliding over a comb. Lames folding upward form a gorget. At the back of the head is a small tubular plume-holder for feathers or panache. A tilting heaume of this period is shown in Fig. 161. The form of the burgonet *c.* 1540 may be seen in Fig. 162, where it will be noticed the visor is kept in position by two straps which meet at the back of the neck. The eyes and part of the forehead would necessarily be unprotected with this type of burgonet, but probably the unobscured view and the freedom of breathing compensated for this lack of protection. Another example of the same period is given in Fig. 163, where an umbril partly protects the upper portion of the face, but no falling-buffe is used. The cheek-pieces are prevented from flying apart by a strap.

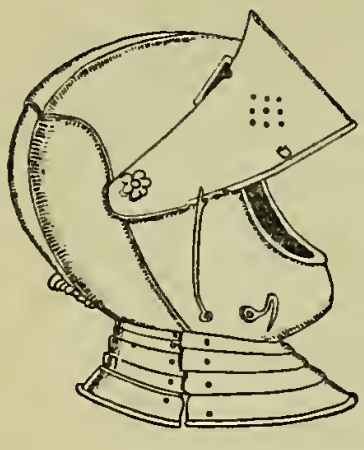


Fig. 160
CLOSE HELMET

Fig. 161
TILTING HEAUME

Fig. 162
BURGONET (*c.* 1540)

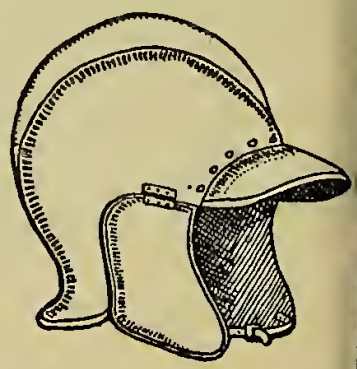


Fig. 163
BURGONET (*c.* 1540)

A burgonet of *c.* 1560 (Fig. 164) has the cheek-pieces and also the buffe fastened with one strap which passes round the neck, while a projecting piece of the falling-buffe serves as a small gorget. The umbril is of a moulded pattern and somewhat uncommon. The salade was such a universal favourite during the fifteenth century that it is hardly surprising to find it still being made well on into the sixteenth, and the example shown in Fig. 165, now in the Madrid Museum, was forged during the Maximilian Period, as is proved by its engraving and ornamentation (not shown).

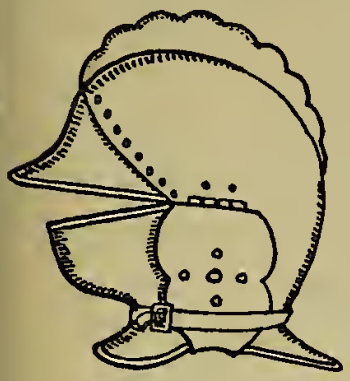


Fig. 164
BURGONET (*c.* 1560)

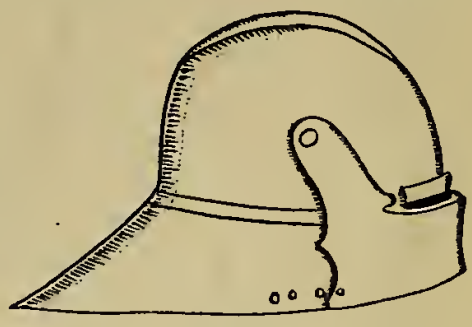


Fig. 165
MILANESE SALADE

The **breastplate** was at first distinguished by a simple tapul or ridge running vertically down the front and intended to divert a lance-head either right or left, but about the middle of the century the civil dress began to exhibit enlargement over the abdomen, until it developed into what was termed the 'peascod' fashion, and the breastplate naturally followed suit. The suit of armour in Fig. 166, dating from *c.* 1550, exhibits the breastplate with a tendency toward the peascod form, but still of reasonable length; it gradually extended downward, until by 1580 it presented the appearance shown in Fig. 167. The Jacobe album, now in the Art Library of

Fig. 166
SUIT OF ARMOUR
(*c.* 1550)

the South Kensington Museum, contains designs of about twenty suits, and although Fig. 168, taken from one intended for Sir Henry Lee, suggests the attitude of a Georgian dancing-master yet that of Sir Christopher Hatton, captain of Queen Elizabeth's bodyguard, which was worn by Dymoke the King's Champion on the occasion when he entered Westminster Hall and threw down the gauntlet to any person who might challenge the right of King George IV to the throne, is preserved at Windsor and is an excellent example of Elizabethan armour. In the Jacobe suits made for the gallants of Queen Elizabeth's Court between 1560 and 1590 the peascod form of breastplate is very much in evidence, and at times assumed the form shown in Fig. 169.

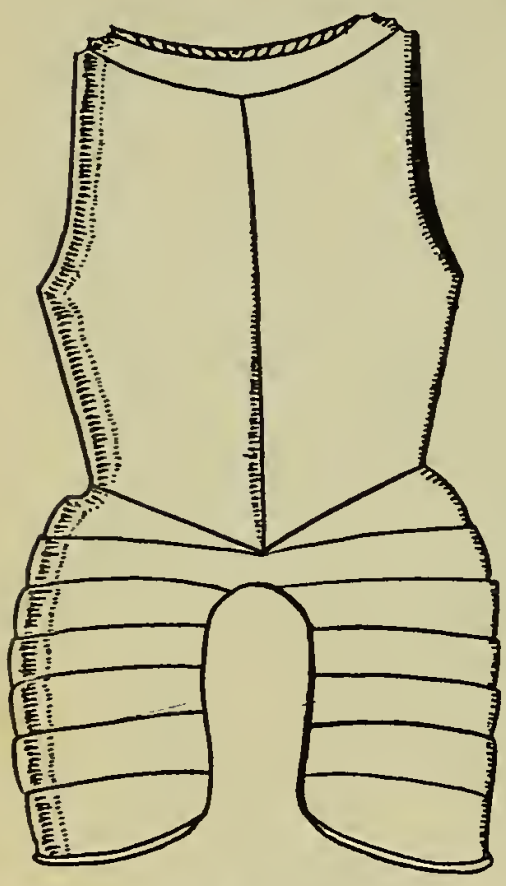


Fig. 167
LONG BREASTPLATE (1580)

Fig. 168
ARMOUR DESIGNED FOR SIR HENRY LEE

Taces and Tassets.—The taces seen in Fig. 166 and the appended tassets of three plates show the style prevailing from *c.* 1550 to 1580, when taces began to be discarded in favour of long lamboys appended to the breastplate.

Pike-guards.—These gradually became discarded as laminated pauldrons were adopted, and by 1580 or earlier were seldom seen.

Sabbatons.—These lost their bear's-paw characteristics (see Fig. 166) as the Elizabethan period ripened, and by the

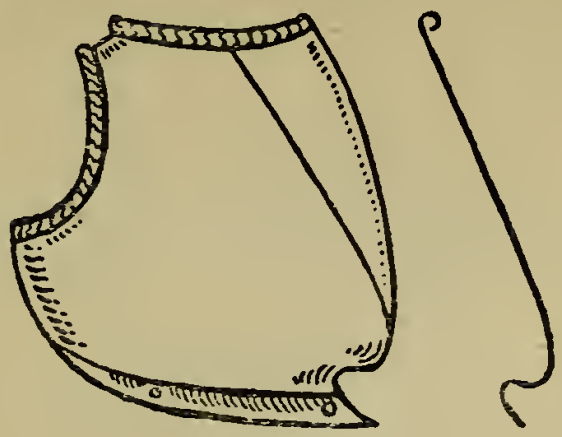


Fig. 169
PEASCOD BREASTPLATE

year 1600 almost approached the pointed solleret form. A number of suits of foreign origin (generally captured during the Spanish Armada period) have broad sabbatons and globular close helmets with no projection over the nose.

CHAPTER XII

THE HALF-ARMOUR PERIOD
(1600 AND AFTERWARD)

THE gradual disuse of body armour which had already begun in the sixteenth century continued during the seventeenth, until by the end but little was left. Just as it is incorrect to say that the feudal castle owed its destruction and disuse to the effect of gunpowder, so is it erroneous to ascribe the abandonment of steel defensive equipment to the progress made in firearms. That the advance of these weapons of precision was one of the factors causing armour to be abandoned is readily conceded, but other causes were at work which exercised far greater influence. One was the weight of the steel defences, which effectively hindered the quick manœuvres of troops on the field, then becoming an all-important part of military tactics. Mr Starkie Gardner quotes Sir James Smith's complaint (1530) in this connexion: "But that which is more strange, these two new fasshaned men of warre doo despise and scorne our auncient arming of ourselves, both on horseback and on foot, saying that wee armed ourselves in past times with too much armour. And therefore their footmen piqueurs they do allow for very well armed when they weare their burgonets, their collars, their curasses and their backs without either pouldrons, vambraces, gauntlets or tasses." In 1593 Sir Richard Hawkins says: "I had great preparation of armours as well of proof as of light corseletts, yet not a

man would use them but esteemed a pott of wine a better defence than any armour of proofe."

By the year 1600 gunpowder had been employed for over two and a half centuries in England and on the Continent, and half-armour remained in use until after the Cromwellian period, so that, according to the theory generally advanced, it took over three centuries for gunpowder to cause the disuse of armour—surely an unconscionably long time to effect such a result. The prime cause manifestly was weight, and the resulting inability to move quickly. King James I said of armour that "it was an admirable invention, for while it protected the wearer from being hurt, it effectually prevented, by its weight, his causing injury to others."

The abolition of armour by reason of its weight accounts for the kind of armour preserved after 1600, *i.e.*, during the Half-armour Period, practically no cap-à-pie suits being in existence. The period is a distinct one, having characteristics of its own which differentiate it from those preceding; hence the student is advised not to omit consideration of it despite the fact that as concerns armour the age of romance had passed, as well as the age of grace and beauty. Many of the suits forged in the seventeenth century present the general appearance of having been fashioned out of boiler-plate and hoop iron, and that shown in Fig. 170 will support the assertion. This is of English manufacture, dating from *c.* 1630, and is preserved in the Wallace Collection. The sabbatons and jambarts date from *c.* 1580 and consequently do not belong to the suit. The close helmet is of the burgonet type, having an umbril over the occularia, the face-guard being pierced with vertical slits to admit of breathing. A gorget-plate affixed to the helmet covers the true gorget of three plates beneath. To the left of the tapul upon the breastplate

is an indentation probably made by a harquebus, but the custom of having a jewel set in these marks did not survive the sixteenth century, and the depression is unornamented. There is a backplate and a small garde-de-rein of three plates, while the espalier pauldrons have brassarts attached which are furnished with 'turners.' There are projecting pieces encircling part of the brassarts, fitting inside corresponding but larger projections worked upon the other half of the brassart; the first readily revolves within the second and can turn freely without becoming detached. Twelve lames form the tassets, which are affixed to the breastplate, while genouillières depend from the lowest lames. The swollen appearance produced by the tassets is due to their being adapted to cover the bombasted breeches.

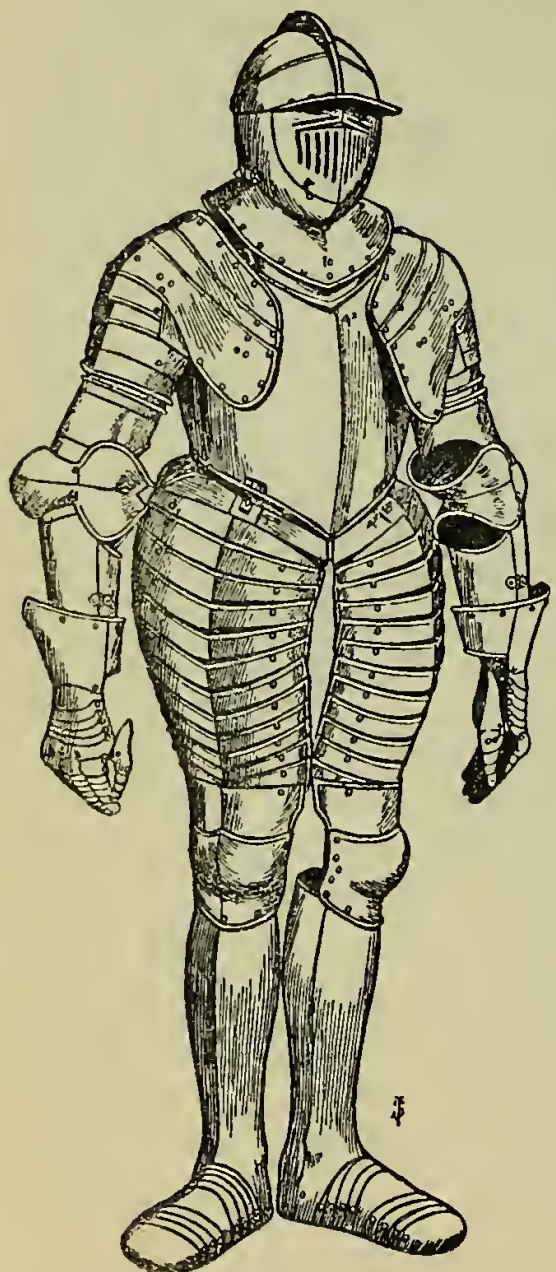


Fig. 170
THREE-QUARTER SUIT (*c.* 1630)
Wallace Collection (*No.* 1322)

This suit, as well as others of that period, does not attempt to imitate in any way the beautiful outlines of Gothic armour or the surface ornamentation of the Maximilian Period: it is an attempt to cover the vital parts of the body with an impenetrable surface of steel, and nothing more. This feeling is manifest in all the

armourers' work during the Caroline and Cromwellian periods, and it is only in rare pageant suits made for the monarchs and their sons that we find that the old artistic instinct could spring into life if required. A suit of parcel-gilt armour made for Prince Charles, afterward Charles I, is preserved in the Tower of London and exhibits work of considerable merit: it was presented by the City of London, is a cap-à-pie suit, and probably was never worn.

The Cuirassiers of the seventeenth century appear to have owed their origin to a movement starting in the reign of James I, when many courtiers and officers of regiments discarded practically all armour as being heavy, cumbrous, and ineffective, and appeared in a cuirass and buff coat. This fashion steadily grew, until in Charles I's time whole regiments were thus accoutred and received the name of cuirassiers in consequence. They were armed with two pistols and a sword. Dragoons appear to have discarded the breastplate and to have adopted a long leather coat and a burgonet. They carried a pike and a musket.

The lancer regiments were apparently the only troops which clung to the old style and retained the greater part of their armour, probably because they appreciated the fact that weight in a cavalry charge was a preponderating factor. They retained the close helmet, backplate and breastplate, gorget, pauldrons, vambraces, gauntlets, tassets, and garde-de-rein, with a buff leather coat beneath the armour in lieu of a hauberk. The lancer thus accoutred carried as well a small arsenal consisting of an eighteen-foot lance with an arrangement by which it was fastened to his arm, two long-barrelled pistols with the cumbrous cartouche box and appliances deemed necessary to load and discharge the weapon, and a long straight sword.

The pikeman in 1620 wore a headpiece similar to that shown in Fig. 171, which superseded a morion-shaped

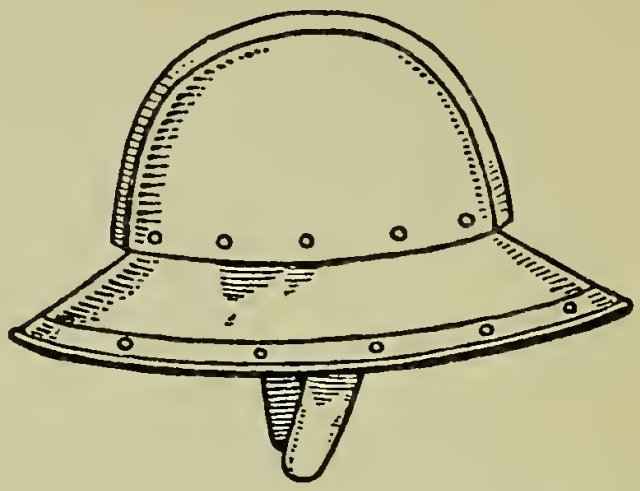


Fig. 171. PIKEMAN'S POT (1620)

helmet of late Tudor times. A backplate and breastplate together with tassets to the knees completed his equipment. He carried a pike and a sword.

CHAPTER XIII

THE TOURNAMENT

Military games, organized to render the soldier familiar in peace-time with the practice of war, have been known from the earliest ages of the classic period, and prevailed especially among the nations that sprang into existence after the fall of the Roman Empire. Very early in the Middle Ages the Teutonic races were known for their warlike feats in friendly rivalry, but probably no regular organized tournaments, so far as England was concerned, occurred until the reign of Stephen. In France they had been popular from the eleventh century, the word 'tournament' itself being derived from the French *tournoiement*, signifying 'a wheeling round.' The French claim to be the inventors of the sport and certainly can adduce good proofs.

The tournament in the Middle Ages took the place of the contending sports of the present day, and the practice and training necessitated by the effort to excel is comparable to that undertaken by athletes of to-day. With equal appropriateness the preparation upon a large scale for these occasions may be compared to that involved in carrying out a sham fight, review, or the familiar military tournament. The popularity of the tournament is undoubted; this is not surprising, since it not only gratified the tastes of the military element and the upper classes, but, by the lavish expenditure necessary for its production and the pomp and magnificence of the display, the lower

orders were both pecuniarily benefited by the preparation and entertained by the pageant. Again, it gave full rein to the medieval passion for ceremonial, but the rules and regulations so dear to the etiquette of the time make strange reading by the cold light of modern experience.

Tournaments were not always in favour with the State, and Henry II forbade them, but under Richard I they were again countenanced, and in 1194 a tournament was held between Thetford and St Edmunds. From that time until the reign of Edward III they were in general favour. In the earlier displays the weapons in use were those of the battlefield, and newer and more stringent rules became necessary from time to time when tournaments, beginning in play, often ended in deadly earnest and became pitched battles. Thus at Rochester, in 1251, a tourney held between English and foreign knights resulted in bloodshed and a riot, while in 1274 the "little battle of Chalons" began in a tournament between Edward I and the Count of Chalons, and was eventually finished by the English archers, who loosed upon the French such a biting shower of arrows that the combat was speedily finished. However carefully tournaments might be arranged and contingencies foreseen, the element of danger to life and limb could not be eliminated, and a long list of fatalities could be compiled from the ancient records of men of note and position who, like Henry II of France, had been fatally injured. Edward III repeatedly issued mandates against the holding of tournaments, but, strange to say, granted the royal permission in many cases. As every competing knight at a tournament paid a good round sum to the king as entrance fee, it is possible that the royal permission was at times swayed by this consideration.

Jousts and Tourneys.—The essential difference between these encounters lay in the fact that jousts (often spelt 'just') were single combats, or a series of single combats, for a prize or prizes, while the tourney was a combat between an equal number of men on both sides, in other words a cavalry charge or miniature battle. A 'passage of arms' may be somewhat freely interpreted, but divested of medieval verbiage it appears to have been a combat between a number of persons on both sides fighting with harmless weapons, or, if using lethal arms, only permitted to use them in such a way as to cause a minimum of injury. Thus in a 'passage' the swords used might be of whalebone, or wood, blunt and without point, while if actual service swords were permitted thrusting was forbidden, and only the edge might be used.

One of the national advantages of these engagements was the necessary care and thought bestowed upon equipment, because a combatant fighting under the eyes of his lady-love was perforce compelled to see that his harness was in perfect condition, and thus at the same time effect an insurance against possible injury when the stress of war happened. The vanquished handed over their horses and armour to the victors, generally to be redeemed afterward, and thus the rules endeavoured to ensure that no Le Noir Fainéant should be seen in the lists, but that every combatant should do his devoir.

There was a variety of the tournament called the 'round table' in vogue during the thirteenth century which appears to have been very popular; Hewitt gives us details of those which occurred at Kenilworth and Windsor. Open house seems to have been kept by the challengers, and, by the adoption of a round table, all questions of precedency were removed.

The trial by ordeal or the judgment of God prevailed

throughout the whole of the age of chivalry, whereby the oppressed or the wrongly accused might meet the accuser in mortal combat, or, failing that, might choose a champion to take his place. Upon these occasions the vanquished had nothing to expect but death. This principle of relegating the decision of justice to the Divine Being was in full accord with the spirit of the age and the chivalrous nature of the times. If the combat lasted from noon until sundown the accused was deemed innocent, but generally there was a quick determination of the encounter. Scott, in his account of the passage-at-arms at Ashby-de-la-Zouch in *Ivanhoe*, gives in the main a correct idea of the mode of procedure, though the student will readily perceive that the military accoutrement assigned to the reign of Richard I is hopelessly incorrect. Fig. 172, illustrated in Hewitt, represents the judicial combat between Walter Blowberme and Hamun le Stare in the reign of Henry III; the latter was vanquished and figures for the second time in the drawing in a more exalted position (Fig. 173).

Fig 172

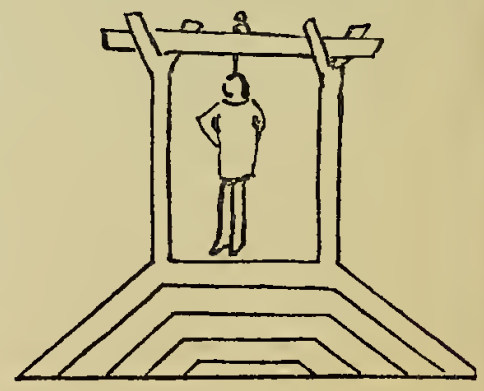


Fig. 173

In many national museums and private armouries there are preserved portions of armour donned by jousters for various kinds of combats in the

lists, and these encounters after a time resolved themselves into definite methods of defence, governed by hard and fast rules precisely similar to those governing cricket and football to-day. They may be classified as follows :

Sharp-lance Running.—This course (Germ. *Sharfrennen*), as its name implies, consisted of an encounter with war-lances, and its chief object was to unhorse an opponent. The saddle in use was similar to that at the present day and quite different from the familiar 'well' saddle of the medieval period with its high guards back and front; there was nothing, so far as the saddle was concerned, that would impede a fall except the extra 'grip' which the shape afforded, helped materially by the absence of any armour upon the legs. Protection to the knees and thighs of the riders was afforded by large projecting steel attachments to the saddle; these were called 'cuishes,' and a pair dated *c.* 1480 may be seen in the Tower of London. The lance was heavy and carried a steel point. The hand grasping it was protected by a vamplate of large dimensions. This was a plate of steel through which the shaft of the lance passed, designed to protect the hand and arm when the lance was couched. One from the Tower of London with accompanying 'queue' is seen in Figs. 174 and 175, and a good

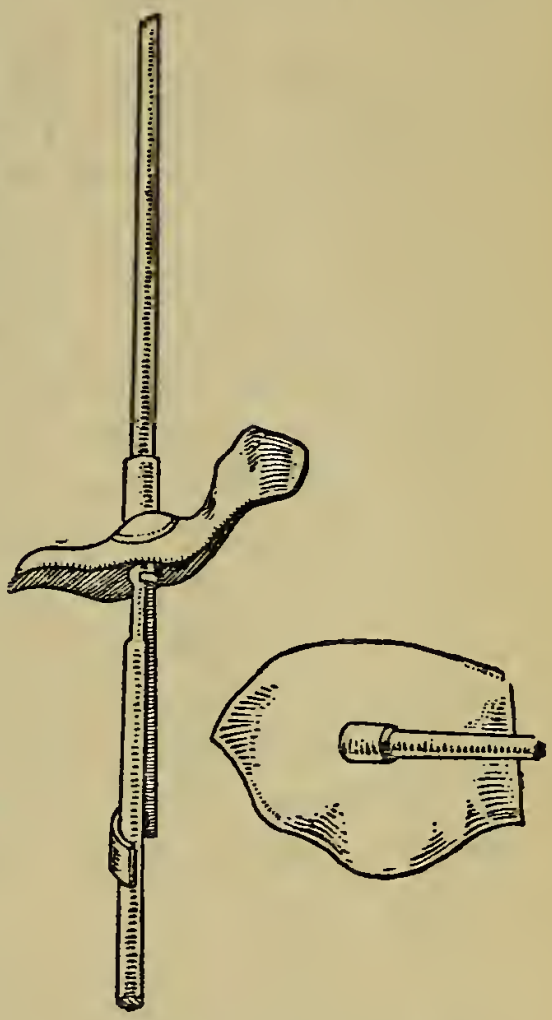


Fig. 174. The Lance and Vamplate of Steel

example is also to be found in the Rotunda at Woolwich. The queue was a bar of iron of oblong section firmly screwed to the right side of the breastplate, where it formed a lance-rest; it was turned downward in order to form a hook at the place where the butt-end of the lance came and engaged with the latter, thus counteracting the upward tendency of the shaft at that point. The armour throughout was of a very ponderous character, weighing without leg defences nearly a hundred pounds, and the shock experienced by the unhorsed rider, though mitigated by a liberal covering of tan upon the ground, can only be left to the imagination.

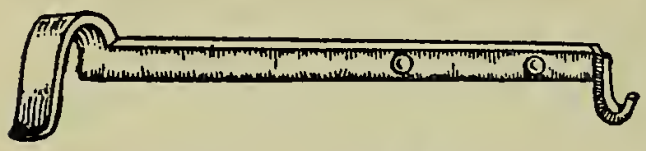


Fig. 175. QUEUE

Permission was given by the rules for the varlets attending a combatant to assist him in retaining his seat if he were not hurled out of it at the time of impact. The extra pieces of armour deemed necessary for this course were the grande-garde with volante-piece attached, and a left shoulder-guard.

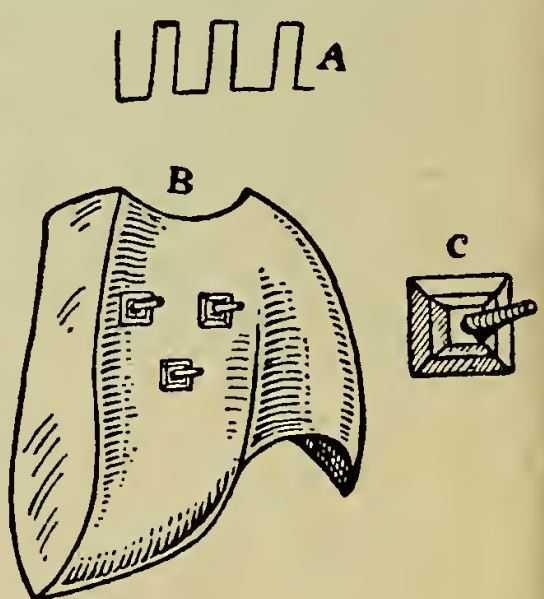


Fig. 176. GRANDE-GARDE

The grande-garde was a piece of plate covering the breast and left shoulder and forming an additional protection over the armour for that side of the body; large screws fixed it firmly to the breastplate. It extended as a rule from the girdle to the neck, and was so wide and deep at the side that the bridle arm had very little play for forward movement (Fig. 176).

The volante-piece was possibly a plate designed to be an additional guard to the grande-garde and to serve for the protection of the eyes.[1] It was often forged in one piece with the latter, but in Fig. 177 is shown affixed to the grande-garde by rivets. In those cases where it was separate a method of affixing it is shown in Fig. 176, where A represents toothing at the lower edge of the piece, and B three projecting screws passing through these slits, for three nuts to screw down in order to attach it firmly. Sometimes the occularium of the helmet was brought to a level with the top of the volante-piece so as to allow for vision; in the Tower Armoury a volante-piece is pierced in its upper part with sighting holes which would correspond with those of the helmet. The volante-piece was occasionally used without the grande-garde, being simply affixed by screws to the breastplate. The left shoulder-guard was usually of wood strengthened with leather and steel plates;

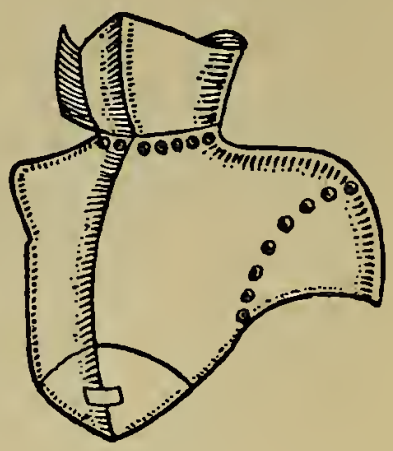


Fig. 177

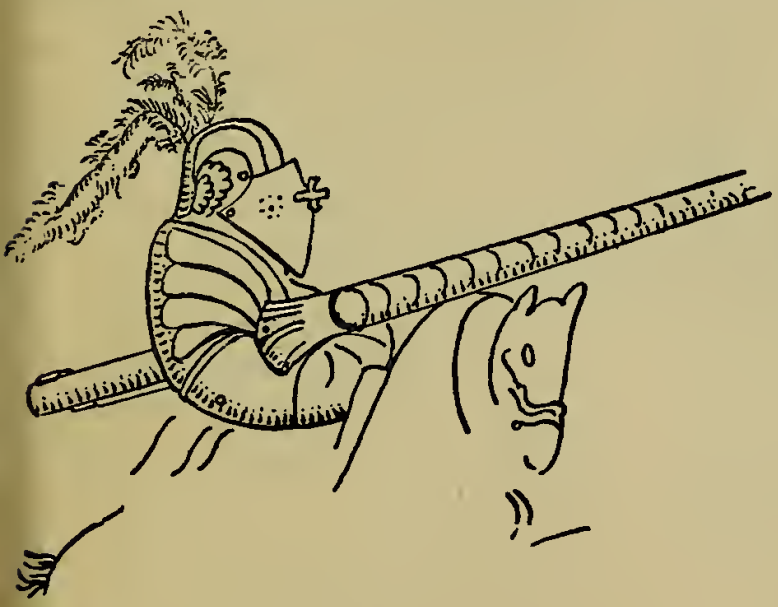


Fig. 178

[1] This view is according to Meyrick, but it has been questioned by Viscount Dillon. See article "The Pasguard . . . and the Volant Piece," in the *Archæological Journal*, vol. xlvi, No. 182, 1889, pp. 129 ff.

it was carried with the object of deflecting an opposing lance.

Among the many innovations preserved to us is a device for holding the lance firmly in rest by means of a tube of iron projecting from a huge vamplate, aided by a queue fastened to the breastplate and projecting behind in the usual manner (Fig. 178). On the salade in the drawing is a grande-garde with breathing holes on the right side only.

The Joust of Peace.—This course (Germ. *Gestech*) is of medieval origin and came into existence probably early in the fourteenth century. It owes its name to the furnishing of lances with a coronal or blunt point, often shaped like a miniature crown, thus differentiating the exercise from sharp-lance running. The object of the jouster was to unhorse his opponent or else to splinter his lance. Much more dexterity and adroitness were necessary in this course than in the former, inasmuch as the rider received no assistance from his horse, for the chanfron upon its head was not pierced with holes for vision, and at times the ears of the steed were plugged with wool. A well-stuffed cushion was used to protect the horse's breast in case of collision. The saddle was without any upright plate

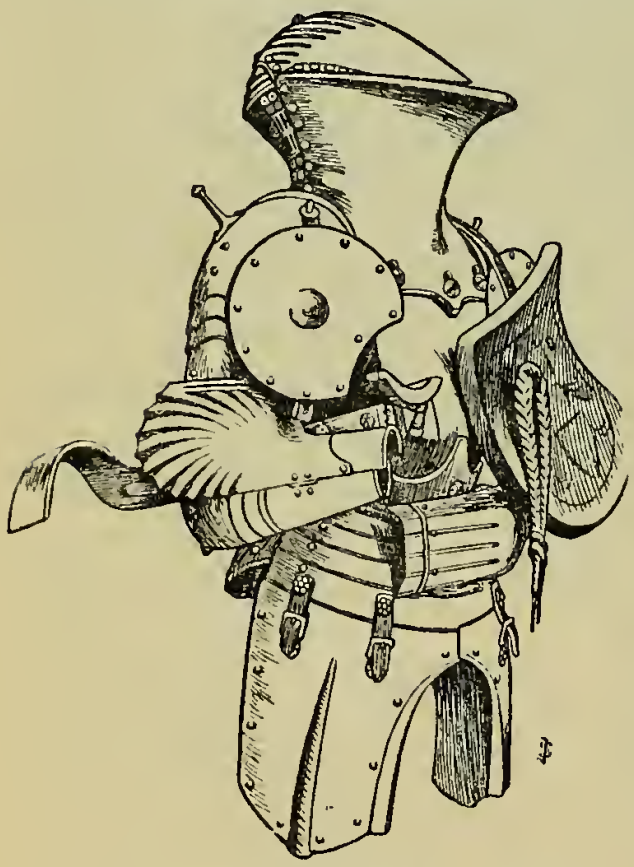


Fig. 179. THE GERMAN COURSE (*c.* 1500)
Wallace Collection (*No.* 327)

behind, but had one in front, so that unhorsing was not hindered in any way. On a suit of *c.* 1500 in the Wallace Collection (Fig. 179) a small shield is affixed to the left shoulder; this formed the point to be aimed at. The great heaume is firmly fixed to the breastplate by screws and has a similar attachment to the backplate. The interior of the heaume permits of free movement of the head. To the vambrace of the right arm is affixed the polder-mitten (Fr. *épaule de mouton*), behind which is seen the queue securely screwed into the side of the breastplate, which has been flattened for the purpose. A lance-rest is also fitted to the breastplate, while a huge circular besague, or roundel, with a bouche cut out for the lance, protects the right shoulder. The lower part of the breastplate is reinforced by a demi-placcate; there are four taces and two substantial tuilles depending from them. Of other leg armour there was none. The left arm is provided with a heavy vambrace and gauntlet forged in one piece, but the right hand is unprotected according to custom. Upon the shoulder-plates (pauldrons) are projections round which were formerly wound the ends of the lambrequin, or contoise (mantling), the scarf fastened to the crown of the tilting heaume; the holes for fixing the crest, the orle, and the lambrequin are to be found upon the heaume. The occularium of this suit would, when used in the course, only present a very narrow opening to an adversary's lance, so finely adjustable are the three portions of the backplate which regulate the width of the opening. The suit weighs just 90 lb. with the heaume, and is a grand example of the armourer's work. Of course, with such a weight of armour upon him a knight when unhorsed was quite helpless, and unable to rise without the assistance of the retainers.

Over the Barriers.—This course, also known as the Italian course, or *Über die Pallia*, saw its origin in Italy and gradually spread through the Continent toward the end of the fifteenth century. Its great distinction from other courses was the presence of a barrier about five feet in height separating the riders, who charged on either side of it and directed their lances over it; hence the name. This form of tournament was well known in England, where it was as popular as in Germany, and in a Roll of the time of Henry VIII, preserved in the Heralds' College, full directions for running it are given. The original idea was to unhorse an opponent, but as the saddle was that generally used in war, and consequently of the 'well' shape, the unhorsing was so rarely accomplished that the splintering of lances became the test of endurance and dexterity. The armour used as a rule extended to the legs, but there are exceptions; why the lower limbs were protected is not apparent, but perhaps the extra weight may have been a factor. The lance-tip was of the coronal form; it was held upon the left side of the horse's head, and the course was run with the left side next the barrier. When the splintering of lances became the chief object of

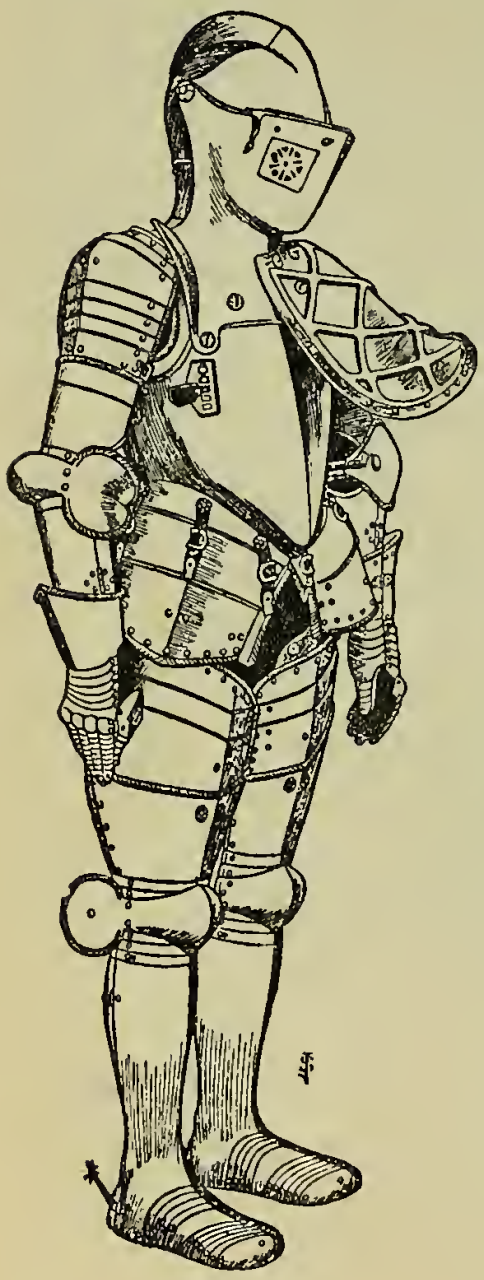


Fig. 180
TILTING ARMOUR (1580)
Wallace Collection (*No.* 729)

the course the 'bourdonasse' was used; it was hollow and light and invariably painted in an elaborate manner.

In the Wallace Collection is a suit dating from about 1580 and attributed to Anton Peffenhauser (Fig. 180). It is a suit for the Italian course and has a closed helmet firmly fixed to a breastplate of the peascod form. The lance-rest is capable of detachment. The thigh-guards are very wide and comprise four plates. The remainder of the suit is generally in accordance with the armour of that date, but the distinguishing tilting feature is the large manteau d'armes, or shield, fastened firmly to the left breast. It is decorated with a trellis pattern in repoussé designed to give a hold to the lance-coronal of the opposing knight, and the lower edge is well turned outward away from the body.

The Free Course.—This was one of a number of courses which sprang from the basis of the three principal ones. It is so denominated because it was run without the interposition of any barrier between the contesting knights. The armour used was in a general way that for the Over the Barriers, with the chief exception that a grande-garde was screwed upon the left side in the place of the manteau d'armes.

The Foot Tournament.—In this course no leg armour was used: the combatants splintered lances upon each other across a low barrier and exchanged sword-strokes upon each other's casques. The lance was grasped with both hands. Striking below the belt was a disqualification because of the absence of leg armour.

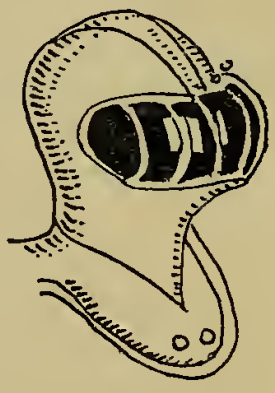


Fig. 181

The Baston Course.—A large helmet, the interior of which was not in contact with the head in any part, was in use for this course, which consisted in two opponents

belabouring each other with short wooden maces or clubs. No visor was used, the front of the helmet being covered with a strong metal grille (Fig. 181), which gave the name of 'grid-iron helmet' to the head-piece. A 'well' saddle was in use, affording a good grip for the rider.

The form of baston or club generally in use was a mace of hard wood thickening toward the end, where it was either circular or polygonal in form (Fig. 182).

Fig. 182. BASTON

CHAPTER XIV

HORSE ARMOUR

The horse was such an indispensable part of knightly equipment that some consideration of horse armour is necessary in any survey of arms and armour. The horse not only carried its rider to the fray, and by its weight added to the efficacy of his onslaught, but we are told that when the riders became unhorsed the rival steeds engaged in battle upon their own account and added to their master's efforts a violent attack with hoofs and teeth. It is not definitely known when horse armour first appeared, because Wace, who mentions it first, lived in the second half of the twelfth century and, like most medieval historians, does not hesitate to ascribe conditions prevailing at his period to those existing in previous generations. To the close of the thirteenth century may be safely ascribed the general introduction of horse armour, and chain-mail for horses. John Hewitt, in his invaluable work,[1] enumerates five different styles of caparison for horses:

(1) A couverture of chain-mail only.

(2) A defence of quilted work.

(3) A housing of light material, possibly covering chain-mail.

(4) A light couverture heraldically decorated, with no defence beneath.

(5) No furniture beyond the war-saddle, peytral or poitrel, and bridle.

[1] *Ancient Armour and Weapons in Europe* (1855–60).

He gives an illustration copied from a painting in the Painted Chamber, Westminster, executed about 1237 and now destroyed. Matthew Paris (*d.* 1259) mentions iron-clad horses in connexion with an Italian army, and in Edward I's time chanfrons of cuir-bouilli were in use, together with bardings of chain-mail and quilted material.

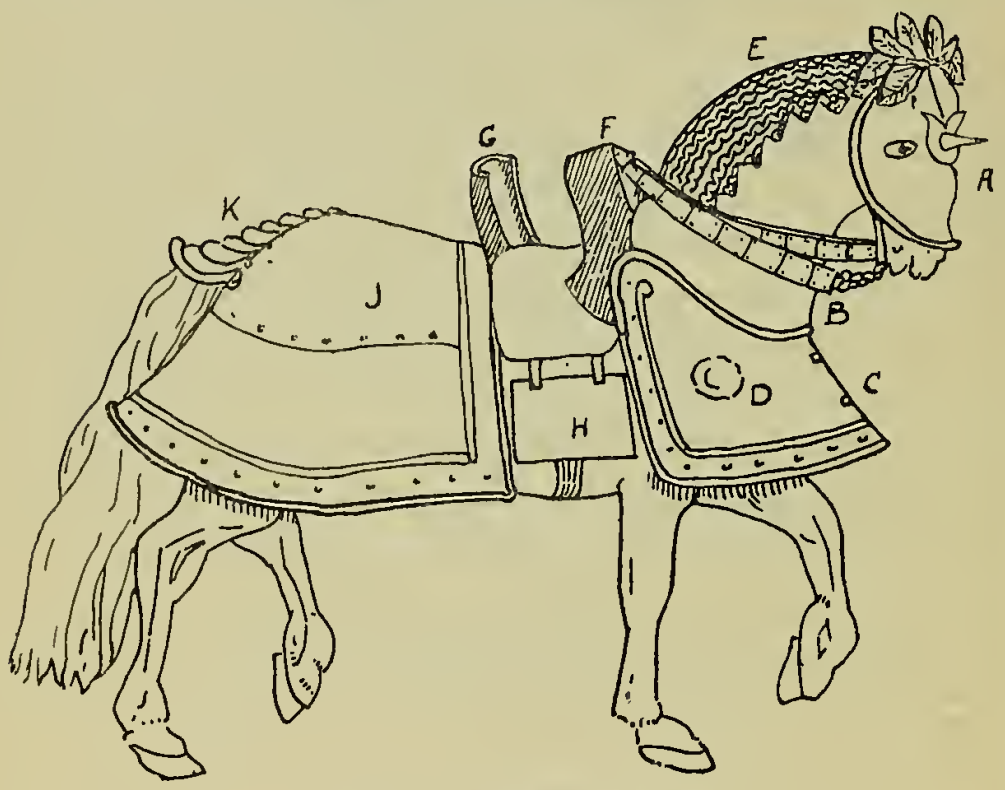


Fig. 183. HORSE ARMOUR

A. Chamfron.
B. Rein-guard, metal.
C. Peytral.
D. Glancing knob.
E. Crinet.
F. Bow.
G. Cantel.
H. Flanchard.
J. Crupper.
K. Tail-guard.

It was not until about the year 1430 that full-plate horse armour appeared, and then it was supplemented by reinforced chain-mail, quilted material, and cuir-bouilli.

The chanfron, or chamfron, protected the face and was often furnished with a spike projecting from the forehead, and at times with a crest, while the crinet protected the neck. The latter was of leather in the earlier form,

but of steel lames in the fifteenth century, the ornamentation as a rule following that of the knight's armour. The peytral, a projecting plate of steel, protected the horse's chest, having two prominences called 'glancing knobs' designed to carry away the lance-head without injury should that weapon strike the peytral. Flanchards were two hanging pieces of plate suspended on either side of the great war-saddle, which with the rising bow or arçon at the front and the vertical cantel at the back effectually protected the lower parts of the body. The crupper, or croupière, covered the hinder portion of the horse and was often provided with a tail-guard, at times ornamented. Estivals were metallic casings for the legs, but were very rarely in use.

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GLOSSARY

Ailettes. Small square shields, fastened at right angles upon the shoulders in order to minimize the sweeping cut from a sword or other weapon.

Almayne rivets. A style of armour in which the lames and plates worked upon sliding rivets.

Anelace. A small broad-bladed dagger which was the common arm of both military and laity during the fourteenth century.

Angon. A spear or javelin.

Annulet. In heraldry, a little circle borne as a charge.

Arbalestier. A crossbowman.

Arbalète à cranequin, or wheel and ratchet. A crossbow of the windlass (Fr. *cranequin*) variety. See p. 85.

Arbalète à cric. A powerful crossbow. See p. 86.

Arçon. The rising front of a war-saddle, or saddle-bow.

Arming points. Leather laces for tying together various parts of armour, *e.g.*, the camail to the basinet, roundels to the front of the arms, etc.

Avant-bras. See **Vambrace.**

Aventail. An early visor or breathing aperture in a helmet.

Axe. A weapon of Scandinavian origin, in all respects similar to the modern hatchet. The head at times weighed as much as twenty pounds.

Backplate. Metal protection for the back from neck to waist.

Badelaire. A short sword or cutlass.

Baldric. See **Hip-belt.**

Barbute. A type of basinet of Continental design.

Bardings. Defensive horse armour for the neck, breast, and flanks.

Barrow. A Saxon interment or grave.

Baselard. A short sword or dagger, frequently represented upon effigies and brasses of civilians in the fourteenth and fifteenth centuries.

Basinet. A type of helmet of ovoid form.

Bavière. See **Gorget.**

Bayeux Tapestry. A strip of linen 200 feet long by 20 inches wide, containing fifty-eight distinct scenes connected with the life of William the Conqueror. Seven colours only, in worsted, are employed: dark and light blue, red, yellow, buff, and dark and light green. There is a strong probability that the work was executed, at any rate in part, by Matilda, the Conqueror's queen. It is a very valuable representation of the armour of the Norman Period.

Besague. According to Victor Gay (*Glossaire Archéologique*, 1887), a double-pointed axe with a short handle.

Besagues. Small circular plates protecting the armpits. See p. 119.

Bill. A weapon similar to the agricultural scythe, but slightly straightened.

Bipennis. A Danish axe having two blades, or on one side a spike in place of a blade.

Bisacuta. A military pick with a point on either side.

Bouche. A piece cut out of the roundel or palette to make way for the lance.

Bourdonasse, or bordon. A lance used in tournaments.

Brassarts. Protection in plate for the whole of the upper arm.

Breastplate. Metal protection for the front of the body.

Breastplate, peascod. An imitation in metal of the prevailing fashion in civilian doublets at the time of Queen Elizabeth.

Bretasche, or bretèche. A covered passage, constructed of wood, on the top of a wall or tower and carried upon the series of corbels called machicoulis. Usually removed during peace-time; for this reason examples are not often found, although the marks where they have been placed are to be seen on almost every old fortification.

Byrnie. A coat of leather, or padded stuff, at times covered with metal plates or rings, worn by the Saxons and Normans.

Camail. A chain-mail protection depending from the basinet and falling loosely on to the shoulders. See p. 74.

Cantel. The raised part at the back of a war-saddle.

Capuchon. The civilian hood of the Middle Ages.

Casque. A defensive or ornamental helmet, with or without visor.

Chain-mail. Flexible defensive armour of metal links, wrought into the form of a garment.

Chanfron, or chamfron. Horse armour covering the face, sometimes provided with cheek-plates working on a hinge.

Chapelle-de-fer. An iron hat with a brim and low comb.

Chausses. Long stockings of chain-mail.

Cingulum. A narrow girdle.

Cinquedea. A broad-bladed dagger or short sword with a blade generally of the width of five fingers at the hilt (hence the name).

Coat-of-mail. A tight-fitting hauberk or tunic of mail.

Coif-de-mailles. A complete covering of chain-mail for the head.

Contoise. A long, flowing veil depending from the apex of the heaume.

Coudières. Metal or leather protection for the elbows.

Crinet. Armour protection for a horse's neck.

Crossbow. During the Norman Period this was of simple

form, but ingenious contrivances for charging the bow gradually developed, resulting in many varieties.

Crossbow à jalet, or **prodd.** See p. 86.

Crossbow, barrelled. See p. 86.

Crossbow, goat's-foot, or **hind's-foot.** See p. 85.

Crossbow, windlass, or **moulinet and pulleys.** See p. 85.

Crupper, or **croupière.** Armour covering the hind portion of a horse, often provided with a tail-guard.

Cuirass. Breastplate and backplate; at first (about 1410) it was plain, but afterward took more ornamental forms.

Cuir-bouilli. Leather softened by boiling in oil, making it very tough when dry, thereby retaining the shape of any object to which it had been moulded while soft.

Cuishes. Metal protection for the knees and thighs, attached to the saddle; used in tournaments.

Cuissarts. Plates defending the thigh, corresponding in leg armour with the brassarts on the arm.

Cultellus. A long dagger, similar to a short sword, used on occasions when staff weapons would be of little avail.

Cyclas, or **cyclatoun.** A sleeveless tunic of silk or other pliable material.

Damascening. Inlaying or encrusting with another metal, such as silver or gold.

Demi-brassarts. Half-armour protecting the outside of the upper arm, fixed by straps passing over the chain-mail hauberk.

Demi-cuissarts. Half-armour for the thighs, strapped over the chausses.

Demi-grevières. Leg defences from knee to ankle, covering only the front part, and strapped over the chausses.

Demi-jambarts. Equivalent to demi-grevières.

Demi-placcates. Movable sections of a breastplate which reinforced and imparted freedom of movement.

Demi-poulaines. The long-toed variety of solleret from which the points had been disconnected in order to fight on foot.

Demi-vambraces. Half-armour protecting the forearm.

Épaulières. Defences for the shoulders.

Estivals. Plate armour for the legs of a horse, but very rarely used.

Falchion, or **fauchon.** Broad-bladed sword, intended only for cutting.

Falling-buffe. Movable defence for the lower part of the face, fixed to the helmet.

Flail, military. A type of staff weapon. See p. 127.

Flamberge. A variety of sword having a wavy blade.

Flanchards. Hanging pieces of plate suspended on either side of the great war-saddle.

Fork, military. An armour-piercing weapon. See p. 128.

Fustibal, or **staff-sling.** See p. 51.

Fyrd. The military force of the whole nation, consisting of all men able to bear arms.

Fylfot, swastika, or **gammadion.** A symbol in the form of a Greek cross, with each arm continued at right angles in the same direction.

Gadlings. Spikes of steel upon the knuckles of gauntlets.

Gambeson, or **wambeys.** A padded, tight-fitting garment, stuffed with wool, quilted as a rule in vertical lines, and worn under the chain-mail hauberk to bear the weight and chafing.

Gammadion. See **Fylfot.**

Garde-de-bras. A protection in plate for the inner bend of the arm.

Garde-de-rein, or **kidney-guard.** Armour defence fixed to the bottom of the backplate.

Gauntlets. Gloves fashioned in plates of metal.

Genouillières. Metal or leather protection for the knees.

Glaive. A broad-bladed weapon which, if divested of appendages such as hooks and spikes, appears similar to a knife-blade on a shaft.

Goedendag. A variety of mace. See p. 126.

Gorget, or **bavière.** Metal protection for the neck and chin.

Grande-garde. Extra metal protection for the breast and left shoulder, fixed firmly to the breastplate by large screws.

Greaves. Armour for the leg below the knee.

Grenade. A hollow ball, or shell of iron, filled with powder or other explosive and ignited by means of a fuse.

Grevières, or **jambarts.** Leg defences from knee to ankle.

Guige. Leather strap by which the shield of a knight was slung across the shoulder, or across the neck and shoulder.

Guisarme. Similar to the glaive and fixed upon a lengthy shaft. Supposed to have originated about the Norman Period.

Gypcière. Bag of leather worn by civilians in the Middle Ages.

Halberd. A weapon, used by infantry, having an axe-blade with curved or straight spikes at the back and a shaft measuring five or six feet in length.

Haqueton. A thick, padded garment, similar to the gambeson. It covered the whole of the person, from neck to knees.

Hauberk. During the Norman Period a coat of thick leather girded round the waist. Later it was made of chain-mail.

Hausse-col. Standard of mail worn round the neck during the middle of the fifteenth century.

Heaume. A type of helmet introduced in the latter part of the twelfth century, forming, during the next few centuries, a reinforcement to the basinet.

Hip-belt, or **baldric.** Jewelled or plain belt worn round the hips, from which depended the sword and misericorde.

Holy-water sprinkler. A type of mace. See p. 127.

Housecarls. In the Norman Period, fighting-men belonging to a household.

Jacque. A padded leather coat worn by men-at-arms.

Jambarts. See **Grevières.**

Jamboys. A bell-shaped skirt of laminated plates reaching to the knees (sixteenth century).

Javelin. A type of light spear thrown from the hand.

Jazeraint, jazerant, or jesserant. A method of defence whereby metal plates were fixed between two layers of pliable material (Saxon and Norman Periods).

Jupon. Sleeveless tight-fitting tunic.

Kern. Light-armed foot-soldier of the ancient militia of Ireland and Scotland.

Knight-banneret. A knight entitled to a retinue of at least fifty men-at-arms with their followers and a banner instead of a pennon.

Knight-bachelor. An esquire who, at the age of twenty-one, was eligible for knighthood. He carried a pennon, but if on the field of battle or otherwise he distinguished himself the tails of his pennon were cut off, and he became a knight-banneret.

Lambrequin. Pendent scarf attached to the great heaume.

Laminated. Formed by lames or movable plates, *e.g.*, épaulières, sollerets, etc.

Lance. The common weapon of cavalry and infantry, varying in length according to whether its owner was a horseman or footman.

Longbow. See p. 33.

Mace. A staff weapon, probably of greater antiquity than any other. See p. 127.

Mail, banded. Mail consisting of rows of rings and strips of leather alternately. See pp. 58–59.

Manteau d'armes. A small shield fastened firmly to the left side of the breastplate (sixteenth century).

Mantlet. A shield fixed into the ground, behind which two or three men could shelter during a battle.

Men-at-arms. Ordinary soldiers of the Middle Ages.

Mentonnière. Metal protection for the throat, fixed to the breastplate.

Misericorde, or dagger of mercy. A fine-pointed poniard used by knights to put a fallen adversary out of pain. See p. 108.

Morning star. A type of mace. See p. 126.

Nasal. Metal protection depending from the helmet to protect the nose (Norman Period).

Occularium. Slit in the helmet for vision.

Oreillettes. Pieces of metal depending from the helmet to protect the ears (early sixteenth century).

Orle. Circlet of padding, sometimes elaborately decorated, worn round the basinet to support the heaume.

Palettes. See **Roundels.**

Panache. Plume, or bunch of feathers, worn on the heaume or helmet.

Partisan. A weapon of the pike type with a two-edged straight blade.

Pauldrons. Armour covering the shoulders at the junction of body-piece and arm-piece.

Paunce. Armour for the lower part of the body.

Pavise. A small shield fixed in the ground to protect archers in a battle, similar to a mantlet, but smaller.

Pectoral. Separate protection for the chest, made in leather or metal (Norman Period).

Pennon. A small flag with tails, attached to the lance; carried by a knight-bachelor.

Petardier. A thrower of bombs or petards containing Greek fire.

Pick, military. See p. 134.

Pike. A spiked weapon. See p. 38.

Plastrons-de-fer. Flat plates of iron, suspended from the shoulders by straps and worn under the surcoat, to protect the body, back and front.

Polder-mitten. An extra metal defence secured to the vambrace on the lower arm for tournament purposes.

Poleaxe. A weapon similar to the ordinary axe, but having a long shaft.

Pot-de-fer. An iron skull-cap worn as an added defence under the coif-de-mailles.

Poulaine, à la. Distinguishing term applied to the long-toed variety of solleret.

Pourpointerie. Material thickly quilted and sometimes studded with metal defences.

Quarrel. Arrow for a crossbow.

Queue. A bar of iron screwed to the breastplate to form a lance-rest.

Quillons. Cross-guards below the handle of a sword.

Ranseur. A weapon similar to the partisan.

Rein-guard. Square pieces of metal protecting the reins on the bridle of a horse.

Repoussé. Ornamentation of metal in relief, produced by pressing or hammering the reverse side.

Rerebrace. A metal defence for the upper arm.

Roundels, or palettes. Plate disks used as a defence for the armpits and elbow-bends. See also **Besagues.**

Sabbatons, or sabataynes. Metal shoes having round toe similar to the mouth of a cow.

Salade. A shallow, loose-fitting helmet, swelling outward a the back of the neck.

Scimitar. A short sword used for cutting purposes.

Scramasax, or seaxe. A short dagger, with knife-like blade found in Saxon interments.

Skean. A large knife or short dagger used among the Irish kerns, also by the Highlanders of Scotland.

Sollerets. Metal defence for the feet formed by long, narrow overlapping plates, similar in outline to the civilian fashion.

Spear. A long-shafted weapon with a sharp, pointed head sometimes barbed.

Spurs, prick. Spurs having a single spike instead of rowels.

Surcoat. A long tunic worn over the chain-mail defence.

Swastika. See **Fylfot.**

Tabard. A simple tunic, generally without sleeves and open at the sides, worn over the armour and commonly emblazoned with the arms of the wearer; the name was later given to the garment adopted for heralds.

Taces. Lames of plate overlapping upward which took the place of the skirt of mail.

Tassets. Lames of plate depending from the taces (Maximilian Period) and similar to the tuilles of the Gothic Period.

Tegulated. A term applied to armour in which different defences in metal were sewn upon the leather hauberk.

Tournament. A warlike game in which a number of combatants took part.

Tuilles. Separate plates protecting the upper leg, depending from the taces.

Tuillettes. Smaller plates sometimes added to the tuilles to protect the thigh.

INDEX

The following abbreviations are used in the index to indicate the various Periods of armour:

C.J.P. . . Camail and Jupon Period (1360–1410).
C.P. . . Cyclas Period (1325–35).
C.M.P. . . Chain-mail Period (1180–1250).
C.M.R.P. . Chain-mail Reinforced Period (1250–1325).
G.P. . . Gothic or Tabard Period (1430–1500).
H.A.P. . . Half-armour Period (1600 and afterward).
L.P. . . Lancastrian or Surcoatless Period (1410–30).
M.P. . . Maximilian Period (1525–1600).
N.P. . . Norman Period (1066–1180).
S.P. . . Saxon Period (to 1066).
S.S.P. . . Studded and Splinted Period (1335–60).
T.P. . . Transition Period (1500–25).